

EXHIBIT B

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE EASTERN DISTRICT OF PENNSYLVANIA
3

4 IN RE: PROCESSED EGG PRODUCTS: MDL NO. 2002
5 ANTITRUST LITIGATION 08-MDL-02002
6

7 - - - - -
8 PHILADELPHIA, PA
9

10 - - - - -
11 DECEMBER 2, 2019
12

13 BEFORE: THE HONORABLE GENE E.K. PRATTER, J.
14

15 - - - - -
16 TRANSCRIPT OF TRIAL PROCEEDINGS
17 DAY 18
18 - - - - -
19

20
21 KATHLEEN FELDMAN, CSR, CRR, RPR, CM
22 Official Court Reporter
23 Room 1234 - U.S. Courthouse
24 601 Market Street
25 Philadelphia, PA 19106
 (215) 779-5578

(Transcript produced by mechanical shorthand via C.A.T.)

1 APPEARANCES:

2 KENNY NACHWALTER, P.A.
3 BY: RICHARD ALAN ARNOLD, ESQUIRE
4 WILLIAM J. BLECHMAN, ESQUIRE
5 DOUGLAS H. PATTON, ESQUIRE
6 MICHAEL A. PONZOLI, ESQUIRE
7 BRANDON S. FLOCH, ESQUIRE
8 201 South Biscayne Boulevard, Suite 1100
9 Miami, Florida 33131
For Plaintiffs The Kroger Co., Safeway Inc.,
Roundy's Supermarkets, Inc., Walgreen Co.,
Hy-Vee, Inc., Albertsons LLC, The Great
Atlantic & Pacific Tea Company, Inc., H.E Butt
Grocery Company, and Conopco, Inc.

10 SPERLING & SLATER
11 BY: PAUL E. SLATER, ESQUIRE
12 JOSEPH M. VANEK, ESQUIRE
13 DAVID P. GERMAINE, ESQUIRE
14 JOHN P. BJORK, ESQUIRE
55 West Monroe Street, Suite 3200
Chicago, Illinois 60603
For Plaintiffs Publix Super Markets, Inc.
and SuperValu Inc.

15 MARCUS & SHAPIRA, LLP
16 BY: MOIRA CAIN-MANNIX, ESQUIRE
17 BRIAN C. HILL, ESQUIRE
One Oxford Centre 35th Floor
301 Grant Street
18 Pittsburgh, PA 15219
19 For Plaintiff Giant Eagle, Inc.

20 AHERN & ASSOCIATES, P.C.
21 BY: PATRICK J. AHERN, ESQUIRE
22 THEODORE BELL, ESQUIRE
8 South Michigan Avenue, Suite 3600
Chicago, Illinois 60603
23 For Plaintiff Winn-Dixie Stores, Inc.,
H.J. Heinz Company, L.P., C&S Wholesale
24 Grocers, Inc.

25 (CONT.)

1 APPEARANCES: (CONT.)

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

PEPPER HAMILTON LLP

BY: JAN P. LEVINE, ESQUIRE

ROBIN P. SUMNER, ESQUIRE

ALEXANDER L. HARRIS, ESQUIRE

WHITNEY R. REDDING, ESQUIRE

KAITLIN MEOLA, ESQUIRE

LACEY D. REEDER, ESQUIRE

3000 Two Logan Square

18th & Arch Streets

Philadelphia, PA 19103

For Defendants United Egg Producers, Inc.

and United States Egg Marketers, Inc.

PORTER WRIGHT MORRIS & ARTHUR LLP

BY: JAY L. LEVINE, ESQUIRE

DONALD M. BARNES, ESQUIRE

ALLEN T. CARTER, ESQUIRE

2020 K Street, NW

Suite 600

Washington, DC 20006

And

PORTER WRIGHT MORRIS & ARTHUR LLP

BY: JAMES A. KING, ESQUIRE

ARLENE BORUCHOWITZ, ESQUIRE

41 South High Street

Suite 2900

Columbus, OH 43215

For Defendant Rose Acre Farms, Inc.

1 (Deputy Clerk opened court)

2 THE COURT: Hello, everyone.

3 MR. BLECHMAN: Good morning, Your Honor.

4 THE COURT: So nice to see you again. I'm sure --
5 have a seat, have a seat. I'm sure you all missed each other.

6 Anything we need to talk about? I think somebody sent a
7 message about the evenings this week or late afternoons. I'd

8 rather do it in bits as opposed to a marathon session, if

9 that's okay with you all. Not tonight and not Thursday. So

10 that means Tuesday and Wednesday. Okay? From like 5 to

11 6:30-ish, and then we'll see what more we need. Okay.

12 Anybody lose any family members to a fight or anything?

13 MR. BLECHMAN: An original Thanksgiving.

14 THE COURT: You know, it's a shtick. Right? Okay,
15 we can bring the jury back. What's next -- where are we?

16 MR. BLECHMAN: Professor Michael Baye will testify
17 next, Your Honor.

18 THE DEPUTY CLERK: All rise.

19 (Jury in.)

20 THE COURT: Okay, everyone, please take your seats.

21 Good morning, ladies and gentlemen. Happy December. I hope

22 you all had a lovely Christmas -- Christmas -- I'm

23 fast-forwarding. Don't think I'm not concentrating. I hope

24 you had a lovely Thanksgiving and that nobody had any really

25 horrendous drive here today. The weather report seems to be

1 that it's going to be rather one of these -- you know, have
2 the newspeople tell you it's scary, but it really is just one
3 of those nothing kind of deals, but if it becomes quite
4 inclement, we will take that into account in terms of closing
5 up for today. So thank you very much for being back. My
6 great focus is going to be now on opening day for the Phillies
7 to practice. All right, we're going to focus on that, aren't
8 we?

9 Mr. Blechman, I think you're back up.

10 MR. BLECHMAN: Thank you, Your Honor. Plaintiffs
11 call as their witness Professor Michael Baye, an economist.

12 THE COURT: As I explained, ladies and gentlemen,
13 the Plaintiff had rested, but because of scheduling of various
14 witnesses for lots of reasons, we're doing this a tiny bit out
15 of order. It's nothing unusual about that. It happens all
16 the time.

17 Come on up.

18 THE DEPUTY CLERK: Please remain standing and raise
19 your right hand.

20 (Witness sworn.)

21 THE WITNESS: I do.

22 THE DEPUTY CLERK: Would you please have a seat.
23 Please state your full name and spell your last name for the
24 record.

25 THE WITNESS: My name is Michael Baye, B-A-Y-E.

1 THE COURT: Good morning, Dr. Baye. How are you
2 today?

3 THE WITNESS: I'm great. Thank you.

4 THE COURT: Did you have a nice Thanksgiving
5 holiday?

6 THE WITNESS: It was good. Thank you for asking.

7 THE COURT: Okay, well, my pleasure. Just make sure
8 you're comfortable and that you keep your voice up, okay?

9 Mr. Blechman, you may proceed.

10 MR. BLECHMAN: Thank you, Your Honor.

11 MICHAEL BAYE,
12 called as a witness herein by the Plaintiffs, having been
13 first duly sworn, was examined and testified as follows:

14 DIRECT EXAMINATION

15 BY MR. BLECHMAN:

16 Q. Professor Baye, good morning. Would you please briefly
17 introduce yourself to the jury and tell them what you do for a
18 living.

19 A. Yeah. My name is -- Mike Baye is who I call myself, but
20 I'm a professor at Indiana University. I've been a professor
21 at Indiana University since 1997. I went to Indiana
22 University from Penn State University. I was a professor in
23 the economics department at Penn State for a little less than
24 ten years, and before that, I was a professor at Texas A&M
25 University. I've been on the faculty as professor at the

1 University of Kentucky. And so that's what I do for a living.

2 Q. Okay. Let me just move this a little bit and make it a
3 little bit easier for me, if I might. All right.

4 Professor Baye, what do you teach?

5 A. I'm an economist. I teach economics.

6 Q. And for whom are you currently employed as a professor of
7 economics?

8 A. Indiana University. I'm in the Kelley School Of
9 Business.

10 Q. Please describe for the ladies and gentlemen of the jury
11 your educational background.

12 A. Yes, sure. I received my undergraduate degree from Texas
13 A&M University in 1980. I got a master's degree in economics
14 from Purdue University in 1981 and a PhD in economics from
15 Purdue University in 1983.

16 Q. Besides your teaching at Indiana University now, have you
17 taught -- well, let me back up.

18 What is the subject matters that you teach at
19 Indiana?

20 A. I'm a microeconomist, which means that I do industrial
21 organization, I do antitrust, I do microeconomic theory, I do
22 applied econometrics, those types of things.

23 Q. Professor Baye, have you taught at any other universities
24 besides Indiana University?

25 A. Yes. I taught industrial organization at Penn State

1 University for the entire time I was there. I taught
2 industrial organization at -- and microeconomic theory at
3 Texas A&M University. I taught microeconomics theory at the
4 University of Kentucky. And I actually taught a course at the
5 New Economic School in Moscow shortly after the Berlin Wall
6 came down, about five years after the wall came down.

7 Q. Do you do economic research as an economist?

8 A. Absolutely.

9 Q. Please describe briefly the economic -- or the types of
10 economic research that you do as an economist.

11 A. Sure. So I do both theoretical and empirical work which
12 means that I look at the behavior of firms and how the
13 behavior of firms impacts the efficiency of markets, the
14 prices that firms charge, the welfare of consumers, things
15 like that.

16 Q. Okay. Do you do any economic consulting?

17 A. I do. I'm a special consultant, academic affiliate for
18 NERA.

19 Q. What is NERA, spelled N-E-R-A?

20 A. National Economic Research Associates. It's an economic
21 consulting firm that has a host of, you know, PhDs and people
22 with undergraduate degrees in economics and computer science
23 and statistics that assist in allowing someone to do the kind
24 of econometrics that's required in a case like this.

25 Q. For how long have you worked with NERA?

1 A. I affiliated with NERA about just a few months after I
2 left the Federal Trade Commission, and that was in
3 approximately 2010-ish.

4 Q. Okay. I'm going to turn to your work for the Federal
5 Trade Commission and other federal agencies in a moment.
6 First, let me -- let me hand you something. Just a moment.

7 MR. BLECHMAN: May I approach, Your Honor?

8 THE COURT: Yes.

9 MR. BLECHMAN: Thank you.

10 BY MR. BLECHMAN:

11 Q. Professor Baye, would you please tell us what -- what
12 I've handed you.

13 A. You've handed my -- handed me my curriculum vitae.

14 Q. Is it a current copy of your CV, or reasonably current?

15 A. It's reasonably current. I've had another paper accepted
16 that's not listed on here, but it's pretty current.

17 Q. Okay.

18 MR. BLECHMAN: Your Honor, Plaintiffs offer --
19 withdrawn.

20 BY MR. BLECHMAN:

21 Q. Dr. -- Professor Baye -- excuse me -- did you prepare
22 this CV of yours?

23 A. Well, my assistant did, with my edits and stuff. I'm not
24 a good formatter, but it's my CV, yeah.

25 Q. Have you confirmed the accuracy of your CV?

1 A. Yes.

2 MR. BLECHMAN: All right, Plaintiffs offer
3 Exhibit 771 in evidence.

4 MR. LEVINE: Objection. It's hearsay.

5 THE COURT: Typically we don't offer the CV as an
6 exhibit.

7 MR. BLECHMAN: That's fine. I'm happy.

8 THE COURT: The material is there --

9 MR. BLECHMAN: And we can use it as a reference tool
10 and that's perfectly fine.

11 THE COURT: Okay.

12 BY MR. BLECHMAN:

13 Q. Professor Baye, if you don't remember something and you
14 need -- your CV would help to refresh your memory, you let me
15 know, but otherwise, let's just keep moving.

16 A. Okay.

17 Q. Have you -- we've heard about peer-reviewed articles in
18 the course of this trial. Let's start by would you explain to
19 the jury what is a peer-reviewed article?

20 A. Yeah, you hear the term "publish or perish" in academics
21 and in economics, that's what peer-reviewed research is all
22 about. It's about conducting scientific research on a number
23 of -- any number of topics related to economics, the impact of
24 business strategies, impact of different market forms, impact
25 of collusion on markets, those types of things, and conducting

1 that research and then submitting it to an academic journal.

2 And once you send it to an academic journal, the
3 editor sends the paper to experts in the field to evaluate the
4 underlying quality and scientific methods used in the paper to
5 make a decision on whether that paper should be accepted for
6 publication in a specific journal or not, and then based on
7 those recommendations, the editor provides his or her own
8 assessment of the paper and then ultimately either rejects the
9 paper, which is the normal case, or invites you to revise the
10 paper to account for criticisms of the referees.

11 Q. Professor Baye, have you written any peer-reviewed
12 articles?

13 A. Yes.

14 Q. Do you have some idea of about how many you've written?

15 A. Somewhere between 50 and 100, maybe, something like that.

16 Q. Over what time period, sir?

17 A. Over my career, since I received my PhD.

18 Q. Give us some idea of the subject matters covered by the
19 peer-reviewed articles that you have written and had
20 published?

21 A. Yeah, sure. So my early research focused on price index
22 numbers, how to measure -- how to measure the impact of
23 changes in prices on consumer welfare, published a couple of
24 papers in a journal called Econometrica on that topic, also
25 did work on the welfare effects of advertising, I've done work

1 on -- empirical work on the impact of the Internet, on the
2 prices the consumers pay for products, documenting the decline
3 in prices as a result of the information that consumers can
4 get on price comparison sites, conducted theoretical work on
5 cartels, collusion, a lot of issues, but the central theme is
6 it focuses on the behavior of individual firms, the impact of
7 their behavior on market efficiency and the prices consumers
8 pay in markets.

9 Q. Have you written any books?

10 A. I have.

11 Q. All right. Now is not the time to be bashful,
12 Professor Baye. Tell us, please, if you would, about what
13 books or textbooks you've written and how they've been
14 received in your field.

15 A. Yeah. So I've written, I guess, three books and then
16 I've edited a number of volumes. The first book I wrote was
17 with Dan Black, who is a professor at University of Chicago,
18 that looked at the impact of income taxation on labor supply.

19 The second book I wrote is a managerial economics
20 textbook, which -- happily is paying college tuition for my
21 kids -- is the best selling managerial economics textbook in
22 the world. And then I've also authored/co-authored a money in
23 banking textbook.

24 Q. Besides the peer-reviewed articles and the published
25 books that you've written, have you served in an editorial

1 position with any journals?

2 A. Yes. I've served --

3 Q. Tell us.

4 A. I've served as a co-editor of Journal of Economics --
5 Journal of Public Policy & Marketing, and I stepped down from
6 that position when I went to Washington to serve as the chief
7 economist of the FTC.

8 Since returning from the FTC, I'm now co-editor at
9 the Journal of Economics & Management Strategy.

10 Q. Would you please give the jury some idea of what your
11 responsibilities are as an editor of an economic journal, as
12 you've described.

13 A. Yeah. It's on the other side of that publish or perish
14 process that I was talking about. When someone sends an
15 article to the Journal of Economics & Management Strategy, Dan
16 Spulber, the primary editor, he farms that out to different
17 co-editors, and then it would be my responsibility to read the
18 paper, make an assessment of its potential contributions to
19 identify experts in the field that would be qualified to
20 assess the underlying economic methodologies utilized, send
21 the paper to those experts to solicit peer reviews of that
22 underlying analysis, kind of mediate potential disputes.

23 Referees aren't always right. People make assertions that are
24 wrong. Do that, communicate the results back to the author,
25 and make a recommendation with respect to whether that author

1 should submit the paper to another journal or perhaps revise
2 and resubmit it for submission to the Journal of Economics &
3 Management Strategy.

4 Q. Would it be fair to say that in your capacity --
5 withdrawn.

6 Would it be fair to say within your role as an
7 editor of an economic journal, that you evaluate the work of
8 other economists?

9 A. Yes, that's correct.

10 Q. You mentioned your work for the United States. Let's
11 take a moment and I'd like you to explain to the jury what
12 work you've done for the Federal Government starting -- you
13 mentioned with the United States Federal Trade Commission.

14 First question, what is the United States Federal
15 Trade Commission, or FTC?

16 A. The Federal Trade Commission is a commission of the
17 United States that, along with the U.S. Department of Justice,
18 enforces antitrust laws. We -- we did during my -- during my
19 tenure there, we were averaging over 2,000 mergers a year that
20 had to be reviewed by the FTC staff and ultimately me.

21 Happily, most of those didn't raise competitive
22 concerns and didn't require further scrutiny, but a large
23 number of them did, in which case my job was to assess the
24 analysis put forth by staff and make an economic
25 recommendation to the commission on whether, for example, they

1 should block the merger or not, whether they should intervene
2 to stop an anticompetitive process or not. And separate from
3 me, there was an individual in the Bureau of Competition,
4 which is where all the lawyers were at the FTC, and that
5 individual would write a separate recommendation so that the
6 commission, who were ultimately the decision-makers at the
7 FTC, they would look at the economic arguments and they'd look
8 at the legal arguments and then they'd make a decision based
9 on those.

10 Q. Were there PhD economists who reported to you in your
11 role as chief economist?

12 A. Absolutely. There were about 70 PhD economists and on
13 the order of 30, you know, researchers that had undergraduate
14 degrees in statistics, economics, some of them math.

15 Q. Besides the Federal Trade Commission, have you -- have
16 you or do you work for any other federal agencies?

17 A. I was recently appointed as the Chairman of the Academic
18 Research Council of the Consumer Financial Protection Bureau.

19 Q. What is the Consumer Financial Protection Bureau?

20 A. It's a Bureau of the Federal Government that was created
21 when Congress passed and President Obama signed the Dodd-Frank
22 Wall Street Reform Act. And effectively what the CFPB does is
23 deals with a lot of the consumer protection issues related to
24 financial markets that I also oversaw while I was at the FTC.
25 So effectively, Dodd-Frank created another agency to provide

1 oversight for financial markets to protect consumers from, you
2 know, misleading financial products and a whole host of things
3 like that.

4 Q. And tell me again, please, what is your title and
5 position.

6 A. I'm the chairman of the Academic Research Council.

7 Q. What are your responsibilities as the chairman of the
8 Academic Research Council at the Consumer Financial Protection
9 Bureau?

10 A. It's purely an advisory position. The Bureau has seven
11 academics that serve on this council, and our job really is
12 just to be resources for the economists at the CFPB to help
13 them ensure that they're using state-of-the-art economic
14 techniques to analyze the markets they analyze. We're there
15 as resources, basically. We have no decision-making authority
16 and we make no formal recommendations.

17 Q. Professor Baye, have you served as an expert in economics
18 in any other antitrust cases before this one?

19 A. Yes, I have.

20 Q. About how many?

21 A. Maybe a dozen, something like that.

22 Q. All right. Give us some idea, if you can, about how many
23 of those were on the Plaintiffs' side and how many were on the
24 Defendants' side?

25 A. It's pretty evenly split. I guess 50/50, something like

1 that.

2 Q. Have you previously worked in an economic capacity for
3 Plaintiffs' law firms?

4 A. I'm sorry?

5 Q. Have you previously worked as an economic expert in --
6 with law firms who represent Plaintiffs in this case?

7 A. Like you?

8 Q. Like me.

9 A. I've worked on one other case with you.

10 Q. Okay. Were you asked to serve as an economic expert in
11 this case, sir?

12 A. I was approached, yes.

13 Q. Upon being approached and asked whether you wanted to
14 serve -- withdrawn.

15 Upon being approached and asked whether you would
16 serve as an economic expert in this case, how did you react
17 and why?

18 A. Well, I -- you know, to be perfectly honest, my initial
19 reaction was kind of suspicious, my prior beliefs were the
20 agricultural markets are very unconcentrated. Not a lot of
21 market power, and when -- when the case was represented to me,
22 I was kind of skeptical that a bunch of small egg producers
23 could pull off the kind of scheme that was being alleged, at
24 least in my conversation, and -- but I said I'd be happy to
25 keep an open mind and begin to look at it. And as I began to

1 understand that it was actually trade association that was the
2 linchpin, then the whole thing wasn't as crazy as I initially
3 thought, and I -- it was a while after having originally been
4 approached, I said I'd be happy to look at it, but -- but if
5 you want someone that's going to say what you want to say, I'm
6 probably not the guy to hire you -- I'll evaluate it and make
7 a decision about whether you want to use my report or not.

8 Q. Eventually, did you, in fact, agree to serve as an
9 economic expert in this case for the Plaintiffs?

10 A. Under that understanding, yes.

11 Q. Okay. Professor Baye, has any court or agency ever
12 rejected your qualifications as an economic expert?

13 A. Not that I'm aware of.

14 Q. By the way, what is the relationship between economics
15 and econometrics? Actually let me ask you a better question
16 first.

17 Are you familiar with the term "econometrics"?

18 A. I'm familiar with the term "econometrics."

19 Q. Would you please explain to the jury what does the term
20 "econometrics" mean.

21 A. Econometrics is just statistics applied to economic data.

22 Q. What is the relationship, Professor Baye, between
23 economics and econometrics?

24 A. I would say econometrics is kind of a subset of
25 economics, like finance is a subset of economics.

1 Econometrics is -- there's two kinds of econometrics, one is
2 theoretical econometrics and one is applied econometrics.
3 Applied econometrics is designed actually to test theories,
4 test hypotheses, to discriminate between alternative
5 explanations for different fact patterns. And basically over
6 the last 20 years -- when I got my PhD -- I have an area in
7 econometrics, but when I got my PhD in 1983, economics was a
8 very theoretical discipline in terms of industrial
9 organization. Almost all the work was theoretical and it's
10 because there wasn't -- there wasn't good data. And really
11 over the past 20 years there's been a revolution in industrial
12 organization towards more empirical work, and that's led
13 researchers in industrial organization to more heavily rely on
14 econometrics rather than pure theory to answer their
15 questions. And that's obviously impacted my research over the
16 past 20 years as well.

17 Q. You've used the term -- withdrawn.

18 You used the term "industrial organization" in the
19 answer you just gave. Would you please explain to the jury
20 what does industrial organization mean.

21 A. Industrial organization looks at how industries are
22 organized, why they're organized the way they are, how that
23 organization impacts the incentives of firms, the functioning
24 of markets, and ultimately the prices and welfare of
25 consumers.

1 Q. Have you published any papers, Professor Baye, in any
2 peer-reviewed journals regarding industrial organization?

3 A. Yes, most of my publications are industrial organization.

4 Q. Have you published any papers in peer-review journals
5 regarding economics?

6 A. Yes.

7 Q. Econometrics?

8 A. Yes.

9 Q. How about economic theory?

10 A. Yes.

11 MR. BLECHMAN: Your Honor, Plaintiffs offer
12 Professor Michael Baye as an expert in economics to testify on
13 Plaintiffs' behalf in this case.

14 THE COURT: Is there any interest in any voir dire
15 examination?

16 MR. LEVINE: No, Your Honor, we don't object.

17 MS. SUMNER: No objection.

18 MR. HARRIS: No objection.

19 THE COURT: Very well. Then Professor Baye is so
20 designated.

21 MR. BLECHMAN: Thank you, Your Honor.

22 BY MR. BLECHMAN:

23 Q. I want to clear up one or two things before we get into
24 your opinions. Do you regard yourself as an expert in the
25 poultry industry?

1 A. No, sir, I do not.

2 Q. Do you regard yourself as an expert in animal welfare?

3 A. Consumer welfare maybe but not animal welfare.

4 Q. All right, so let's turn to your assignment, Professor
5 Baye, in this case after we asked you to serve as an economic
6 expert. When did you start work in this case, approximately?

7 A. Approximately 2010.

8 Q. And did you work with -- withdrawn.

9 You've identified the consulting firm NERA as a firm
10 with whom you've worked. Did you work with NERA in connection
11 with discharging your work in this case?

12 A. I did.

13 Q. What is the hourly rate that you have charged and are
14 charging Plaintiffs in connection with your work in this case?

15 A. Well, actually, I don't charge the Plaintiffs, I bill
16 NERA, and I bill NERA at a rate of \$750 an hour.

17 Q. Do you supervise professionals at NERA who -- with whom
18 you ask to do work in this case?

19 A. That's correct. I direct them to do work for me.

20 Q. Do you -- do you check their work?

21 A. I spot check their work. I can't check every single line
22 of code that a programmer would write. I check -- I do spot
23 checks, I do sanity checks, and then one of the things I like
24 about NERA is they always have a second person that kind of
25 shadows the person to kind of double-check all the work. It

1 doesn't mean that mistakes don't happen, but it's a very, you
2 know, it's way better than me doing it alone, I can tell you
3 that.

4 Q. In fact, there's someone from NERA in the courtroom
5 today; is there not?

6 A. That's correct.

7 Q. All right. Do you have an understanding, Professor Baye,
8 of the substance of Plaintiffs' allegations regarding
9 Defendants' conduct in this case?

10 A. Yes, sir, I do.

11 Q. Please describe to the jury your understanding of
12 Plaintiffs' allegations regarding Defendants' conduct in this
13 case?

14 A. Well, there's kind of three elements. One is, what I
15 would term as kind of short-term supply measures, things like,
16 you know, emergency flock reductions, things like that, to
17 reduce output and raise prices. That's one of the
18 allegations.

19 The second concerns the UEP Guidelines, UEP
20 Certification, the impact of that on output. And the fact
21 that that, in terms of the Plaintiffs, was a mechanism that
22 through the UEP and the Plaintiffs were able to elevate prices
23 through output reductions.

24 And then third is, you know, short-term export
25 programs administered through the USEM.

1 Q. Were you asked to use your economic training and
2 experience and review the record in this case to determine to
3 what extent, if any, did Defendants' challenge conduct reduce
4 the output of eggs in the United States?

5 A. I did.

6 Q. Did you do that work?

7 A. I did.

8 Q. Did you form opinions?

9 A. I did.

10 Q. Are you prepared to testify today with respect to those
11 opinions?

12 A. Yes, sir.

13 Q. Were you asked to use your economic training and
14 experience and review the record in this case to determine to
15 what extent, if any, did the egg prices increase as a result
16 of Defendants' alleged unlawful conduct?

17 A. Yes.

18 Q. Did you do the work?

19 A. I did the work.

20 Q. Did you form opinions?

21 A. I formed opinions.

22 Q. Are you prepared today to explain to the jury your
23 opinions?

24 A. I'll do my best to explain it.

25 Q. Sir, were you asked to use your economic training and

1 experience and review the record in this case to determine to
2 what extent, if any, did Plaintiffs -- did each Plaintiff pay
3 more for eggs because of Defendants' alleged unlawful conduct?

4 A. Yes, sir.

5 Q. And did you do that work?

6 A. I did.

7 Q. Did you form opinions?

8 A. I did.

9 Q. Are you prepared to explain to the jury today your
10 opinions?

11 A. Yes.

12 Q. What materials did you consider in forming -- withdrawn.

13 What materials did you consider in doing your work
14 and forming your opinions?

15 A. Well, I, you know, first of all, I just used my general
16 economic knowledge, the training that I've had over my career
17 and the stuff I learned at the FTC and so forth. In terms of
18 the specifics of this case, I relied on Government data from
19 the USDA. I relied on data on egg prices from Urner Barry,
20 who reports wholesale prices for many dozens of different
21 types of eggs and egg products. I looked at the discovery
22 database, had access to the discovery database. I had access
23 to a variety of depositions. I had -- I mean, I just looked
24 at all of the information that was available. I couldn't look
25 at every piece of it, but I did searches for key terms and so

1 forth. That's the way I typically try to comb through large
2 documents. So I looked at large volumes of documents, but,
3 you know, I didn't read like every single word of every
4 document. Some of the documents my staff reviewed and then
5 pointed me to. But that's basically the way I do economic
6 research.

7 Q. Okay. I want to review with you then, at least some of
8 the opinions that you have -- you have reached in connection
9 with the work that you did.

10 MR. BLECHMAN: We have some demonstratives, Your
11 Honor, if I may, just for a moment, hand them to counsel, and
12 may I hand them to the witness as well?

13 THE COURT: Yes.

14 MR. BLECHMAN: Thank you.

15 BY MR. BLECHMAN:

16 Q. Professor Baye, you explained earlier that included in
17 your assignment was -- you were asked to determine, To what
18 extent, if any, did Defendants' challenge conduct reduce the
19 output of eggs in the United States?

20 And you explained that you have done that work and
21 reached an opinion, correct?

22 A. That's correct.

23 Q. Would you please explain to the jury in summary form what
24 is your opinion, sir.

25 A. Well, it's the first bullet here. Do you want me to read

1 it or --

2 Q. Well, you can, sure.

3 A. The alleged unlawful conduct caused the market output of
4 eggs to be 2.1 to 5.5 percent lower than it otherwise would
5 have been.

6 Q. Than it otherwise would have been. That phrase, what
7 does that mean: Than it otherwise would have been?

8 A. That's supposed to make it easy because the term we used
9 at FTC was the but-for world. So in an antitrust matter, the
10 question isn't whether egg production went down or whether egg
11 production went up. Because, you know, the egg production
12 could be rising for lots of different reasons that are
13 unrelated to the conspiracy, and it may well be that the
14 conspiracy just slowed the rate of increase in that output,
15 okay. So the but-for world is the world that would have
16 existed but for the alleged conduct.

17 Q. All right. Now, in connection with doing your analysis,
18 did you also look at -- I'm going to use some economic terms
19 here -- elasticities and relevant market?

20 A. Absolutely, that's very, very important in a case like
21 this.

22 Q. So first let's set some definitions and then we'll move
23 to what you found. What does elasticity or inelasticity mean
24 as an economist, Professor Baye?

25 A. As an economist, it's just a measure of how sensitive

1 consumers are to price changes. If demand is elastic, it
2 means if a firm raises price just a little bit, a whole bunch
3 of people quit buying the product, okay. If demand is
4 inelastic, if the price rises a lot, people don't cut their
5 consumption very much. So typically, you know, products that
6 are relatively small components of your budget tend to be very
7 inelastic, like bubble gum used to be the classic example back
8 when it was a penny -- anyone on the jury -- anyway, I forget
9 that I'm not teaching, but you used to put a penny in a bubble
10 gum machine and get a ball of gum. If you doubled the price
11 of bubble gum from a penny to two pennies, that's 100 percent
12 increase in the price of bubble gum, but it's not going to
13 lead to the huge reduction in the number of balls of gum that
14 you sell. That's the intuitive notion of inelasticity.

15 Q. Relative market, that's another term we're going to turn
16 to next, but in summary form, would you please explain to the
17 jury what does relevant market mean?

18 A. Relevant market is simply that the product and the
19 geographic area where one would find anticompetitive effects,
20 if they existed.

21 Q. Okay. And in connection with the economic work you did
22 in this case, did you form any opinions about whether eggs are
23 inelastic or elastic in terms of demand and what the relevant
24 market is?

25 A. I determined that the -- using documents and econometric

1 analysis, I determined that demand for eggs is very inelastic,
2 not surprisingly, and I determined that the U.S. and eggs are
3 the relevant geographic and product market.

4 Q. Okay. In connection with your work, you also explained
5 that you were asked to determine to what extent, if any, did
6 egg prices increase as a result of the Defendants' alleged
7 unlawful conduct, and you did that work, did you not?

8 A. I did.

9 Q. And what did you find?

10 A. I found that because the demand for eggs is highly
11 inelastic, even a small reduction in output would lead to a
12 large increase in price.

13 Q. You also explained that you were asked to determine to
14 what extent, if any, did Plaintiffs pay more, did each
15 Plaintiff pay more for eggs because of the Defendants' alleged
16 unlawful conduct, and you formed opinions on that subject,
17 correct?

18 A. That's correct.

19 Q. And what, in summary form, did you find?

20 A. I found that the Plaintiffs paid higher prices to
21 co-conspirators, including Rose Acre, as a result of the
22 alleged unlawful conduct.

23 Q. Speaking of Rose Acre, the jury has heard testimony
24 during this trial of Rose Acre's contention that it increased
25 its production of eggs. And my question to you, which we'll

1 cover in more detail, is: Would evidence that Rose Acre or
2 any other producer increased its own production contradict
3 your conclusions?

4 A. No, it would not.

5 Q. Would you please explain to the jury why it would not.

6 A. Yeah, the question in a conspiracy is whether the
7 conspiracy, which, in this matter, based on my economic
8 training, is really hinged around the UEP, okay, the United
9 Egg Producers. And through -- if through the UEP the overall
10 production of eggs fell and Rose Acre increased its output a
11 little bit, if it's just a drop in the bucket relative to the
12 whole market, it's not going to offset the reduction in output
13 that was caused by the conspiracy.

14 So there's lots of reasons that Rose Acre's output
15 could increase. It could acquire smaller firms that might not
16 be able to adhere to the guidelines. It's cost -- as cost
17 effectively as a larger firm. That would lead to an increase
18 in output through acquisition. That wouldn't be an increase
19 in output even if one ignores the fact that you have to look
20 at total output.

21 Q. Did you write a report and -- and supplemental reports in
22 connection with your work in this case?

23 A. Yes, I did.

24 Q. All right. And when did you write your initial report?

25 A. Well, I mean, I started writing it in about 2010. I

1 mean, everything is, like, ongoing. As I'm learning new
2 facts, they go in there before I forget them. My random
3 access memory is not particularly good. So I like to put them
4 in my report. So I started then and I think started getting
5 close to a final version of my report around 2000 -- I'm going
6 to guess. I don't remember.

7 Q. Just approximate.

8 A. Around 2014, and I think I filed my report in 2015 in
9 this case.

10 Q. And did you do some subsequent supplements to that
11 report?

12 A. I did, as a result of some -- some legal opinions of the
13 Court on matters that are above my understanding.

14 Q. All right. I want to just -- as a demonstrative, just
15 give you your reports and if you need them as aids in
16 testifying, you'll tell me, and hopefully that will speed
17 things up.

18 MR. BLECHMAN: Your Honor, may I approach?

19 THE COURT: Yes.

20 BY MR. BLECHMAN:

21 Q. Professor Baye, in preparing your reports, did you do
22 your own analysis?

23 A. Yes, I did.

24 Q. Does that include data analysis?

25 A. It includes data analysis.

1 Q. Did you do your own writing?

2 A. I write my own reports. That doesn't mean that I don't
3 have staff to correct my errors and typos and stuff like that,
4 but, yes, I write my reports.

5 Q. So all that stuff there, yea thick, that's yours?

6 A. That's mine.

7 Q. All right. Have you been reading that -- the court
8 reporter in this case, who is seated in front of you, has been
9 transcribing the proceedings in this trial every day, and
10 fortunately, because of her efforts, the lawyers in this case
11 get a copy of that transcript at the end of every day.

12 My question to you, Professor Baye, is have you been
13 reading the daily transcripts of this trial up until today?

14 A. I have.

15 Q. Okay. Let's turn to the first of several of your
16 opinions regarding whether Defendants' alleged anticompetitive
17 conduct reduced output of eggs in the United States.

18 Did you consider flock size, sir, in determining
19 whether, if at all, the Defendants' alleged anticompetitive
20 conduct caused a reduction in the market output of eggs?

21 A. Yes. That's the first thing I looked at.

22 Q. Why flocks -- well, first of all, flock size, just give
23 us a primer. What is it?

24 A. Flock size is -- in terms of what I'm doing is looking at
25 USDA data on the number of -- the size of flocks that are

1 producing eggs for human consumption. So that includes caged
2 eggs and also cage-free eggs, specialty eggs.

3 Q. Why look at flock size?

4 A. Well, because in an industrial organization in antitrust,
5 you want to link the alleged allegations to the institutional
6 features of the case. So in this case, if the allegations are
7 correct, it would have -- it would have impacted prices, at
8 least in terms of the UEP certification and the
9 UEP Guidelines, through flock sizes, because if you impose
10 cage space restrictions, backfilling ban, those types of
11 things, it's going to reduce the number of hens per cage and
12 then the question is did it have an effect or did it --
13 expansions by other inference or existing firms offset the
14 reduction, or were there productivity enhancements because
15 you're putting fewer hens. All of those things are empirical
16 questions that you want to look at empirically, and the
17 starting point as a matter of economics is to look at layer
18 hens because they are the key input in producing eggs.

19 Q. How did you use flock size in determining whether, if at
20 all, the Defendants' unlawful conduct caused a reduction in
21 market output of eggs? What did you do?

22 A. Well, the first thing I always do in a case like this is
23 just plot the raw data and see what it looks like.

24 Q. Did you prepare a graph to see what it looks like?

25 A. I did.

1 MR. BLECHMAN: If we can please put up Slide 2.

2 This is in the demonstrative packet that all counsel have at
3 this point.

4 BY MR. BLECHMAN:

5 Q. Professor Baye, do you see on the screen in front of you,
6 or on the hard copy, whichever is easier, sir, for you to look
7 at and use, do you see slide Number 2?

8 A. I do.

9 Q. And this is titled Total Flock Size With Linear --

10 MR. BLECHMAN: Has this been published to the jury?
11 I just want to make sure it's on the screen, Your Honor.

12 THE COURT: Yes.

13 MR. BLECHMAN: Okay. Thank you very much.

14 BY MR. BLECHMAN:

15 Q. Professor Baye, Slide 2 is titled Total Flock Size With
16 Linear Trends 1990 Through 2012.

17 Do you see that?

18 A. I do.

19 Q. Would you please explain to the ladies and gentlemen of
20 the jury what is showed on this demonstrative.

21 A. Yes, so on the horizontal axis, those are the years
22 starting from 1990, going all the way up to 2012, and on the
23 vertical axis -- that's the one that goes up and down -- I've
24 got the total flock size, the number of layers in millions;
25 but what this graph does it just plots USDA data on the number

1 of linear hens. And what you see, if you just look at that
2 blue line -- let's see if I can make this work. If you look
3 at this part of the curve right here -- is that working?

4 Q. It's working.

5 A. Okay. Miracles do happen sometimes. So if you look at
6 that part of the curve, I mean, it's pretty clear that there's
7 this constant upward trend in egg -- in the number of layer
8 hens, right? And that's kind of what you would expect given
9 the nature of the industry.

10 But what's curious here -- see if I can get rid of
11 that -- if you look at this period right here, notice that the
12 total number of eggs here in 2012 is certainly higher than the
13 number of eggs in 2002, 2003. There's clearly a different
14 trend there. So the first thing I see when I look at this is,
15 gee, they're -- based on just looking at the data, there's a
16 change in the pattern of the data.

17 So what you can do, in fact, is you can show that
18 those trends are statistically different. So what I have here
19 is two trend lines. This is one trend line, and this is
20 another trend line right here. And so what I did is just a
21 simple statistical test just to get things started to see if
22 those trends and the number of layers are statistically
23 different, and I concluded, based on standard econometric
24 procedures, that those -- those two lines are statistically
25 different in terms of their slope. Something changed.

1 Q. I wrote this down, because I heard in your answer that in
2 explaining the diagonal line, the blue line, that you
3 explained that that's what you would expect given the nature
4 of the industry.

5 Do you recall, generally?

6 A. I do.

7 Q. I'd like the jury to understand what you mean when you
8 say that that's what you would expect given the nature of the
9 industry.

10 A. Well, again, I just want to be very clear, I'm just
11 talking at a very high level here.

12 Q. I understand.

13 A. We're talking about how I started out. So I'm thinking
14 eggs are relatively inexpensive. My wife's a thrifty shopper
15 and if the price of eggs go up, she might quit buying them,
16 but a lot of people will continue to buy eggs because they're
17 relatively inexpensive if the price of an egg goes from a dime
18 an egg to \$0.11 an egg, right?

19 So what you might expect is that a big driver of the
20 total number of layer hens in the country is going to be
21 what's happening to the population, what's happening to
22 income. If you have kind of steady population growth or
23 steady income growth over time, you would expect to kind of
24 have a growing layer flock.

25 But again, that's not scientific, but I always

1 approach data from the real-world perspective and then kind of
2 drill down on the institutional details that allow me to
3 scientifically form a judgment.

4 Q. By "population," are you referring to the U.S.
5 population?

6 A. Yes, U.S. population.

7 Q. And just another in a long line of acronyms here, make
8 sure we all understand, USDA?

9 A. U.S. Department of Agriculture.

10 Q. Okay. What, if anything, do you take away from Slide
11 Number 2 here, Total Flock Size With Linear Trends 1990 to
12 2012?

13 A. That there's a change. And in terms of what I'm
14 interested in as an economist is, you know, what caused the
15 change. Lots of things could lead to that difference, right?
16 It could be that feed costs went up, it could be that we had
17 the Great Recession. It could be -- you know, it could be a
18 whole host of things or it could be a conspiracy.

19 I'm agnostic as an economist on whether the
20 conspiracy caused or did not cause this, but I'm just looking
21 for all the economic factors that could have contributed to
22 these declines because ultimately you can't prove anything by
23 just looking at a simple graph. You've got to do statistical
24 analysis to examine that but-for world, that otherwise point
25 that we talked about earlier.

1 Q. Okay. Then in addition to this linear trend analysis --
2 would this be called a linear trend analysis, by the way?

3 A. The two lines would be simple linear trend analysis, yes.

4 Q. All right. In addition to the linear trend analysis, you
5 explained you didn't stop there. So tell us, what then did
6 you do next?

7 A. Well, I began reading the documents to understand what
8 was going on in the industry around this time so that I could
9 better understand, you know, what was causing the change in
10 the number of layer hens, and that ultimately led to the
11 development of an econometric model that allowed me to examine
12 the impact of certain -- certain elements of the record while
13 controlling for other factors that might have contributed to
14 the decline.

15 Q. What is an economic model --

16 A. Okay, well --

17 Q. -- in lay terms?

18 A. In lay terms, it's a mathematical relationship between
19 one set of variables like population and another set of
20 variables like the number of layer hens. A more sophisticated
21 model would include other variables like the price of feed and
22 a whole host of other variables, but that's the idea of an
23 economic model.

24 Q. Did you create a model for testing the record in this
25 case?

1 A. I used many models to test the record in this case.

2 Q. All right. Well, did you -- did you create a model --
3 how do you estimate the conspiracy effect from a model?

4 A. Well, what you do is you look at events and you would
5 examine whether those events led to a change in behavior. So,
6 for example, just as a hypothetical -- can I give a
7 hypothetical to explain?

8 Q. Please give a hypothetical.

9 A. In this case, imagine the record was that starting in
10 about 2003, 2004, a bunch of egg producers got in a
11 smoke-filled room and decided to jack up prices, unilaterally
12 raise all their prices in a coordinated fashion, and the
13 record demonstrates that's exactly what they did.

14 Then what one would do is -- just taking that as a
15 given, I can't prove they met in a smoke-filled room and did
16 anything, but I can say if that's your hypothesis, I can test
17 whether that event led to a change. Of course that fact
18 pattern doesn't fit this case, but that's the idea of how you
19 build a model.

20 So in this case, the evidence doesn't suggest it was
21 done by -- in a smoke-filled room and that makes perfect
22 sense. There are many, many egg producers, right? So if
23 there were only two or three egg producers, you know, like a
24 handful of airlines, for example, then you might worry a
25 little bit about whether they met in a smoke-filled room.

1 Airlines set prices. These guys are effectively
2 producing output, and the market is determining what the price
3 is based on the output. So using my economic training, I
4 wouldn't use that first method. What I would do is I would
5 look at a model that accounts for the way prices are formed in
6 this market.

7 Q. Did you -- I'm sorry.

8 Did you, in fact, prepare such a model?

9 A. I did.

10 Q. What are the components of that model?

11 A. The components of the model include the dates at which
12 each of the restrictions imposed by the UEP Guidelines went
13 into place.

14 Q. Let me stop you there for a second. Have you prepared a
15 slide to explain this?

16 A. Oh, yes, absolutely.

17 MR. BLECHMAN: All right, if we can move to Slide 3,
18 please.

19 BY MR. BLECHMAN:

20 Q. Please tell us, first, what is Slide 3, and then continue
21 with your answer about how this model applied to your work.

22 A. Right. So these restrictions here, think about those as
23 being analogous to the smoke-filled room example that I gave
24 you. These are the dates on which the cage space restrictions
25 by the UEP would have impacted the number of layer hens.

1 Okay. So Restriction 1 is August 2002, which is four months
2 after that first cage space restriction went into place. That
3 was applied to pullets that were born basically four months
4 before that. And you have the cage space size and so forth.
5 During Restriction Period 1, towards the tail end of that
6 there's a little asterisk that indicates that the hundred and
7 first -- the hundred and first -- the 100% rule was first
8 applied at the tail end of this period. So that first
9 restriction is capturing the effect of the cage space
10 restrictions coupled with a little bit of that data, including
11 the 100% rule.

12 Restriction 2 then is an indicator that's going to
13 see what impact -- what happened to flock size during that
14 period and so on down to Restriction 5.

15 Q. Okay. And let's just cover the fields here. Date
16 applied, what is that?

17 A. The date applied is when the indicator is turned on, when
18 that variable is one instead of zero.

19 Q. All right, and the minimum average space per hen, is that
20 from the UEP Guidelines?

21 A. That's from the guidelines, yes.

22 Q. And then the next column reads: 100% rule in effect.
23 What do we take from that column?

24 A. Well, again, this is whether the 100% rule was in effect
25 during each one of these restrictions. And what you see is it

1 was fully in effect in Restriction 2 through Restriction 5.

2 Q. And the last column reads: Backfilling ban. Does it
3 not?

4 A. It does.

5 Q. What does that reference refer to?

6 A. It references whether the backfilling ban was in place
7 during that restriction period. So the backfilling ban was
8 imposed by the UEP sometime during this Restriction 3 period,
9 and then was in place during Period 4 and Period 5.

10 Q. If you've explained this, then I apologize. I didn't
11 catch it. You've got in the first field, it says: Indicator?

12 A. That's correct.

13 Q. All right. What does indicator mean?

14 A. It indicates whether a restriction was in place or not.

15 Q. All right. And do the -- do you link the indicators to
16 the facts in the case in the industry and the conduct here?

17 A. Absolutely.

18 Q. How do you do that?

19 A. In terms of data analysis, the indicators in statistical
20 terms are going to be zeros and ones. I can't do mathematics
21 using words, right? So the standard practice is to use
22 indicators. So what these indicators are, are zeros and ones
23 depending upon whether these different restrictions are in
24 place. But the zeros and ones just didn't come out of thin
25 air. They're linked to the documentary record on when these

1 cage space restrictions went in place.

2 Q. I note in Restriction 1 the date applied is August 2002;
3 do you see that?

4 A. I do.

5 Q. Why did you start with August 2002 and not an earlier
6 time period?

7 A. Because this is the first month when a day-old hitch
8 would have entered production under the stated guidelines.

9 Q. Did you run a regression with these indicators
10 controlling for any other potential effects?

11 A. I ran lots of regressions with these indicators
12 controlling for lots of other possible factors that would
13 influence it.

14 Q. Have you prepared a slide that identifies other potential
15 effects that you control for in your regression model?

16 A. Yes.

17 MR. BLECHMAN: If we could turn to Slide 4, please.
18 There we go.

19 BY MR. BLECHMAN:

20 Q. Tell us what we're looking at in Slide 4, Professor Baye.

21 A. Okay, the thing that is in the background there is all
22 the different specifications that I considered. I considered
23 a whole different set of controls that might possibly explain
24 that pattern in flock size that I observed in the raw data,
25 okay. And what I have here is highlighted all the different

1 variables that I've accounted for in these various regressions
2 on flock size. So the first one -- do you want me to explain
3 each one?

4 Q. Well, I do, but let me ask you a question first. You've
5 used the word "control" --

6 A. Um-hum.

7 Q. -- in referring to these items that are listed in Slide
8 4. What do you mean by "control"?

9 A. Okay. A control is going to control for other factors
10 that influence flock size. So clearly, feed costs you'd
11 expect to influence flock size, right? So maybe flock size
12 fell because feed costs increased substantially starting in
13 2003. If I -- if I control -- if I include feed costs as an
14 explanatory variable, if it explains the reduction in flock
15 size and the indicators don't, then that means that it's
16 explained by that variable, right? So the control means, it
17 allows me to rule out the possibility that it was feed costs
18 that caused that reduction instead of something else.

19 Q. All right, so now let's, if we could, go through the
20 items that you've listed here in Slide 4 that you have control
21 for to eliminate the possibility that any one or more of them
22 explains the results that you see in your model, starting with
23 real feed cost. You've already covered that, have you not?

24 A. That's correct.

25 Q. All right, the next I see here is electricity. Tell us

1 what you mean -- I mean, we all have an understanding of what
2 electricity is, but in the context of this control, tell us
3 what you're doing here, please.

4 A. Fans in henhouses, just the cost of operating a henhouse,
5 you might imagine that that matters a little bit, and so you
6 include that as a control to control for the possibility that
7 the reason we observed this decline in layer flocks is because
8 there was a huge increase in the price of electricity that
9 induced farms to have fewer layers.

10 Q. Okay. The next item that you control for is GDP. What
11 does that mean and why did you control for it?

12 A. Real GDP is kind of a standard control that you would use
13 in a model like this because it's a parsimonious -- simple
14 way, convenient way of controlling for two things in one. It
15 controls for changes in population and it controls for changes
16 in income. So GDP is just a measure of the total value of
17 goods and services that are produced in the U.S. So as
18 incomes go up, real DGP goes up. As population goes up, GDP
19 goes up. So real GDP is a way of controlling both for
20 population and possible events like recessions when GDP falls.

21 Q. The next item you have here that you control for is time.
22 Once again, I think we all have an idea what time means, but
23 explain what you mean in the context of your model.

24 A. Yeah. So time -- you know, it's impossible to build an
25 economic model that controls for every possible possibility

1 you could concoct to explain away a change in flock size or
2 any other variable that you're interested in examining. And
3 so a standard practice in economics is to use time as a
4 control for allowing, you know, unobserved variables that you
5 haven't explicitly controlled for to change over time. So you
6 can include time, you can include time squared that allows for
7 various patterns in movements of variables that you haven't
8 explicitly controlled for.

9 And in this case, the time and time squared
10 variables control for the possibility -- among other things
11 that I do, control for the possibility that, you know, changes
12 in animal welfare concerns impacted the demand for eggs and,
13 therefore, the number of layers.

14 Q. So on that note, just as long as you bring it up, the
15 Defendants contend that if hens have a little bit more space,
16 they produce more eggs. To what extent, if at all, do you
17 control and account for that contention in your model?

18 A. Well, I'll first state that that contention is
19 inconsistent with the documentary record that I reviewed.
20 Just ballparking it. The work by Don Bell suggested that if
21 you go from four hens to three hens in a standard-sized cage,
22 that each hen will produce ten more eggs. That's the
23 productivity increase. So you put fewer hens in a cage, you
24 get ten more eggs. Typical hen lays on the order of 230
25 hens -- 230 eggs a year. So if you take one hen out, you're

1 losing 230 eggs from that hen, you're gaining 30 eggs from the
2 increased productivity. According to Don Bell, the overall
3 effect is to reduce the number of eggs. But in this case,
4 econometrically I'm just going to be agnostic about whether
5 these reductions lead to more eggs or not, but the flock size
6 model is not going to answer that question.

7 Q. Okay.

8 A. That's why I'm going to ultimately look at egg production
9 to see what happens.

10 Q. All right, then we'll get to that subject there.

11 On the subject of time, when we're looking at these
12 controls, you also mentioned time squared. And we don't need
13 to go through all time again, but what does time squared mean?

14 A. It's just -- you take the date and you square it.

15 Q. All right. You've covered feed costs but you have a
16 reference to lag five feed costs. What does that mean and
17 what is the difference between it and lag four feed costs or
18 just feed costs?

19 A. Right. So a critical question in any economic matter
20 like this, is, you know, what information do producers have
21 when they're making relevant decisions, right? So if the
22 price of eggs jumps today, there's not a whole lot an egg
23 producer can do to take advantage on that, right? Those are
24 more long-term decisions.

25 So what I have here is, just as a robustness check,

1 I use a variety of different lags of these key variables, you
2 know, a four-month lag, that assumes that producers' decisions
3 are made four months before actual prices are made. I
4 consider five-month lags and I also consider, you know,
5 contemporaneous levels. That is assuming that they can
6 instantaneously react to the current price. So I want to
7 ensure that whatever conclusions that I arrive at are robust
8 to using different measures of the information that egg
9 producers would have had at the time they made their
10 decisions.

11 Q. All right. That answer helps us understand what lag four
12 and lag five means, so I can -- I don't have to cover the same
13 subjects with lags.

14 And I think the next one that I see here then would
15 be population.

16 A. Yeah.

17 Q. Tell us -- tell us -- we know what population -- human
18 population means in the U.S., but tell us what it means in the
19 context of the model and as a control, please.

20 A. Yeah, so in this case, I told you that a parsimonious way
21 for controlling for population is to use real GDP. Well, just
22 to make sure that that parsimonious way of doing that work and
23 it wasn't leading to implications of a model where an artifact
24 of that modeling assumption, I also ran specifications where I
25 included population as a separate control.

1 Q. Why does that matter?

2 A. Just to verify that my findings aren't predicated on the
3 model being misspecified.

4 Q. You also have a reference as a control here to soybean
5 price. Tell us what that is.

6 A. Yeah, so in my parsimonious specification, I used one
7 variable to represent the real feed cost. That's a fixed -- a
8 fixed menu of corn and soybean based on the documentary
9 record, the mix of corn and soybeans that are used. It allows
10 me to use a single variable as a control. But to ensure that
11 that approach and the information of the documentary record
12 weren't leading to misleading results, I also separately ran
13 models where I separately included real soybean prices and
14 real corn prices, effectively allowing for the possibility
15 that maybe egg producers substituted between corn and soybean
16 depending upon the prices that they had to pay for those
17 products.

18 Q. Did you also control for diesel price?

19 A. I did.

20 Q. Did you control for fed fund rate?

21 A. I did.

22 Q. Tell us what that means.

23 A. Yeah, so the two that are probably mysterious here would
24 be the TED and the federal funds rate, those are really
25 measures -- the federal funds rate is kind of -- kind of an

1 accepted measure of macroeconomic activity. Accepted thought
2 that ups and downs in the macroeconomy, the economy as a whole
3 is impacting the number of layers that are in production, then
4 that is going to be a way to control for that possibility.

5 The TED spread is a measure of credit availability.
6 So, you know -- and the reason I included that is, you know,
7 you do have the great recession, that is during this period,
8 and I wanted to be -- I'm controlling for it through real GDP,
9 but I wanted to use other controls to ensure that my results
10 weren't being driven by the great recession. So by including
11 the TED spread, I'm controlling for the fact that basically
12 credit markets completely dried up during 2000 -- about the
13 time I left the FTC.

14 Q. Do you also have references here to controlling for
15 intercept and monthly dummies? Which I don't know what that
16 is, so help us understand.

17 A. The intercept is just the constant in the regression. I
18 mean, it's just like many people -- maybe the number of flocks
19 would be constant and then change over time as a function of
20 changes in other variables. That's what the intercept is.

21 The monthly dummies recognize that egg production,
22 egg consumption is seasonal. You don't consume the same
23 number of eggs around Easter time that you do at some other
24 time, for example.

25 Q. So regarding population, just if we go back to that for a

1 second, you control for changes in the population in your
2 model; is that right?

3 A. That's correct.

4 Q. And what effect would that have on egg output?

5 A. Again, you might expect that if -- if producers expected
6 the population to grow, that they'd want to have more layers
7 to accommodate more people needing eggs.

8 Q. What effect would you expect there to be, or difference,
9 if any, would you expect there to be were there a conspiracy
10 or were there not in terms of population and the output of
11 eggs?

12 A. I'm not sure I understand the question.

13 Q. Well, let me try there. Can you think of any examples
14 about changes in -- other than changes in population that --
15 by way of an analogy, to explain the fact that there's more
16 people may or may not indicate whether there's a conspiracy?

17 A. Well, whether there's a conspiracy or not is going to be
18 all be driven by --

19 Q. Whether it has an effect. Excuse me.

20 A. Right. So whether a conspiracy has effect aren't going
21 to be measured by these variables here. These are controls to
22 ensure that the variables that I do examine, in fact, are
23 capturing what I'm trying to capture, and that is the impact
24 of the cage space restrictions and ultimately the backfilling
25 ban.

1 Q. So the question I'm inartfully trying to get to is: How
2 can there be an anticompetitive effect from the Defendants'
3 alleged unlawful conduct if the flock size increased during
4 the conspiracy with population growth?

5 A. Again, it's that but-for question that I raised earlier.
6 Just because the flock size in 2012 is greater than the flock
7 size is in 2002 doesn't mean the conspiracy didn't have an
8 effect. So by way of an example, imagine that -- imagine that
9 a bunch of employers in the Philadelphia area all got together
10 and conspired to reduce annual salary increases, cost of
11 living increases from, say, 3 percent to 1 percent. Right?
12 Well, in the but-for world, without the conspiracy, everyone
13 would get a 3 percent raise. With the conspiracy, they only
14 get a 1 percent raise. It wouldn't be a valid economic
15 defense to say, gee, everyone's getting paid 1 percent more
16 this year than last year; therefore, there can't be a
17 conspiracy.

18 That's the reason you want to control for these
19 things and ultimately see what the world would have looked
20 like in the but-for world. So these -- these are going to
21 allow me to predict what prices would look like in the but-for
22 world.

23 Q. Professor Baye, did you run regressions with all of the
24 controls that you've covered with the jury here?

25 A. I ran a variety of different regressions with different

1 combinations of these controls.

2 Q. Have you prepared a demonstrative slide to show your
3 results?

4 A. I have.

5 Q. If we could please turn to Slide 5. Slide 5 is titled
6 Percent Reduction of Flock Size; is that correct?

7 A. That's correct.

8 Q. Would you please tell the jury what -- well, let's go
9 through this, if we could.

10 The first field is Restriction, correct?

11 A. That's correct.

12 Q. That has the same meaning as the restriction we saw
13 earlier?

14 A. That's right.

15 Q. And then we have Effective Date, same meaning?

16 A. That's right.

17 Q. And Minimum Cage Space Per Hen, same meaning?

18 A. Absolutely.

19 Q. And here now we have: Percentage reduction of flock size
20 and statistically significant at 99 percent level.

21 So I'll try to focus my questions on what is now
22 shown in this slide. Please explain to the jury using Slide 5
23 the results of the regression models you ran controlling for
24 those variables that you mentioned earlier.

25 A. Okay. After we control for all this -- this is for my

1 parsimonious specification, just to be clear. I've got other
2 specifications that actually show larger effects, but my
3 parsimonious specification leads to really the smallest
4 effects that we have in the data. So what I'd like you to
5 think about is this, these numbers right here. So let's just
6 interpret those.

7 What that 0.2 percent means, that after we control
8 for other factors, flock size was .2 percent lower during the
9 period when the UEP imposed the first set of cage
10 restrictions, when the minimum cage space went to 56 inches
11 for whites and 63 inches for the other hens. Restriction 2
12 shows a reduction in flock size of 1.3 percent.

13 Q. And this is February 2004 through July 2005, correct?

14 A. That's right. That's the first tightening of the -- you
15 know, these cage space restrictions didn't just start at one
16 period and stay the same for all time. They started out low
17 and they ramped up over time. So what this indicates is
18 during Restriction Period 2, the output -- I'm sorry -- the
19 flock size declined by 1.3 percent.

20 Q. Just for purposes of completeness in the record, for the
21 period in Restriction 1, August 2002 through January 2004,
22 what percent reduction of flock size did your model report?

23 A. Restriction 1.

24 Q. In Restriction 1, yes?

25 A. Reduction of flock size of .2 percent.

1 Q. All right. And then Restriction 2 you've now covered.
2 So take us through Restriction 3, which is the period
3 August 2005 through January 2007.

4 A. Yeah, so, again, I think -- hopefully you get it. So as
5 you look at these numbers, as the successively tighter cage
6 space restrictions are applied, we start observing increases
7 in the reduction of flock size.

8 Q. Excuse me. Were you finished?

9 A. I can give you the numbers.

10 Q. Sure.

11 A. So Restriction 3, during Restriction Period 3, the flock
12 size was 3.3 percent lower than it would have been but for the
13 restrictions. During Restriction Period 4, production -- I'm
14 sorry -- the layer flocks were 6.5 percent lower than they
15 would have been but for the restrictions.

16 Q. And Restriction 4 covers the period February 2007 through
17 July 2008; is that correct?

18 A. That's correct.

19 Q. All right. And Restriction 5, which covers the period
20 August 2008 through December 2012, what were your results
21 there?

22 A. That flock size was 6.7 percent lower as a result of
23 restrictions imposed during that period.

24 Q. Now, the last field -- excuse me -- the last column in
25 Slide 5 reads: Statistically significant at 99 percent level.

1 Do you see that?

2 A. I do.

3 Q. Please tell us what is meant by the reference to
4 statically significance at 99 percent level?

5 A. Yeah, so in terms of the numbers that I just explained,
6 those are what economists and econometricians call point
7 estimates. That's my best guess, right? And an important
8 question to ask when you do statistical analysis is how
9 confident are you in that guess. So statistical significance
10 really relates to P values, which is the probability that I
11 would find an effect if there was no effect. So what's the
12 probability that I find that the conspiracy reduced output
13 when, in fact, it did.

14 The answer to that question is less than 1 percent,
15 if I'm interested in kind of a 99 percent confidence level.
16 So that's the technical way to do it. But the way I tell it
17 to my students, just so they don't get confused, is it roughly
18 means that I'm 99 percent confident that the results that I
19 have here aren't based on chance or some mistake that I've
20 made in the modeling, but are an artifact of the underlying
21 statistical copies of this.

22 So I can't say there's not some chance that
23 something else caused the decline and it wasn't the cage space
24 restrictions, but I can be highly confident that my model, in
25 fact, is predicting -- predicting these effects.

1 Q. Does this model scientifically test for whether expansion
2 or entry offset the impact of the Certified Program?

3 A. It allows for entry.

4 Q. What does that mean, that "it allows for entry"?

5 A. Okay. So, you know, as an economist, you know, you might
6 be interested in quantifying the question exactly how much did
7 output expand as a result of entry.

8 Q. And what output are you talking about?

9 A. Output of layer flocks, the number of layer flocks,
10 right? So, you know, that's asking a different question.
11 This antitrust proceeding, as a matter of economics, is about
12 did the number of eggs ultimately decline as a result of the
13 actions of the Defendants and co-conspirators, right? It's
14 not about how much of that didn't occur because there was
15 entry.

16 So all I've got to do as a matter of econometrics is
17 allow to recognize that entry is going to occur. The
18 documentary record clearly indicates that entry is likely to
19 occur. Why do I say that? Don Bell predicted that these cage
20 space restrictions would reduce layer flocks by 26.4 percent.
21 So if the UEP Guidelines had been imposed perfectly and there
22 had been no entry or no expansions or no cheating on the
23 underlying mechanism that's being implemented here, these
24 numbers would be way bigger than they are.

25 And so you ask the question: Why is it that these

1 numbers are way smaller than Don Bell predicted would happen?
2 It's because his predictions are based on the assumption that
3 there are no other changes in the market. These predictions
4 take into account the possibility that individual players,
5 perhaps Rose Acre, expanded their operations, and what this
6 means is even if Rose Acre happened to increase its own number
7 of hens, overall number of hens fell. Their increase wasn't
8 enough to offset the anticompetitive effect.

9 Q. Did you stop there, Professor Baye, in assessing whether
10 there was a change in U.S. flock size due to the Defendants'
11 alleged unlawful conduct?

12 A. No. I also, you know, prepared a graph to kind of do a
13 smell test of whether the predictions of this model made
14 economic sense.

15 Q. If we could turn -- if we could turn to Slide 6 now. Is
16 this the graph to which you were referring?

17 A. That's the one.

18 Q. All right. This is titled Actual Flock Size Versus
19 But-For Flock Size, Main Specification, 1990 to 2012; is that
20 correct?

21 A. That's correct.

22 Q. All right. And just again, once again, just orient us.
23 There's this term "but-for flock size." What does that mean?

24 A. That's the -- the flock size that would exist but for the
25 alleged conspiracy.

1 Q. Okay. And there's a reference to main specification.
2 What does that mean?

3 A. That's the one I just described, the one that uses the
4 parsimonious specification.

5 Q. Please, tell us, what does Slide 6 show?

6 A. Okay, so let me -- I've got - I've got friends that are
7 color-blind. So I'm not going to call out colors. So I want
8 to just highlight this -- this curve right there. That's the
9 actual raw data from the USDA. That's what actually happened
10 to flock size, right? And I told you before that you've got
11 to be real careful looking at trend lines or just looking at
12 raw graphs. Because in this case, if you had attributed all
13 of that decline to the conspiracy, you would have grossly
14 overstated the impact of the conspiracy.

15 What the but-for price does is it traces out -- I'm
16 sorry -- the but-for flock size does is it traces out the
17 flock size that would have existed had the cage space
18 restrictions and the other restrictions imposed by the UEP not
19 been put in place. So as you can see, this gap between these
20 lines represents the decline in the number of hens stemming
21 from the alleged conspiracy. And so -- I'm just lecturing, I
22 guess, but if you have a question, maybe I should go back to
23 that, I apologize.

24 Q. No, that's fine. Did you also take a look -- you've
25 testified at some length now about flock size?

1 A. Yes.

2 Q. But you've also testified some about egg production. So
3 let me turn to that subject of egg production.

4 A. Yes.

5 Q. And did you analyze egg production in connection with the
6 economic work you did in this case?

7 A. I did.

8 Q. Why?

9 A. Because ultimately, that's the question, the number of
10 eggs declined. If the number of eggs declined, what impact
11 would that have had on prices. So flocks were the input to
12 produce eggs.

13 Q. How did you analyze -- withdrawn.

14 How did you account for egg production in connection
15 with your analysis?

16 A. I used exactly the same methodology I did before, and one
17 reason to do this is to ensure that having fewer hens in cages
18 didn't result in more eggs because the hens were happier, for
19 example.

20 Q. Did you prepare a slide to reflect your findings with
21 regard to egg production?

22 A. Yes.

23 Q. If we might look at Slide 7, please. Professor Baye, is
24 Slide 7 the slide to which you refer?

25 A. It is.

1 Q. All right. This is titled Total Production With Linear
2 Trends, 1990 to 2012; is that correct?

3 A. That's correct.

4 Q. Now, there are a number of -- there's a dotted line,
5 there's dash lines, there's a blue line that converts to a red
6 line.

7 Tell us, please -- tell the jury what they're
8 looking at.

9 A. Yeah, this is exactly the graph I showed you at the very
10 beginning with respect to flock size, only here I'm looking at
11 eggs, total production of eggs, and so what you see here,
12 again -- what I just observed, again, this doesn't prove
13 anything because this is just a graph. You don't prove
14 anything scientifically by looking at a graph, okay?

15 This line right here, if you just look at what's
16 happening to the production of eggs, up until about 2002,
17 2003, it's just following that pretty straight linear trend.
18 And then when you get here to this period right here, notice
19 that it starts following a different trend. Again, egg
20 production is higher right here than it is right here.

21 Q. By "here," where do you mean?

22 A. I mean in 2012, egg production is higher than egg
23 production was in 2003.

24 Q. Okay.

25 A. But you notice that the trend is different, right? And

1 so as an economist, again, the first thing I do is look at raw
2 data. The raw data, again, is telling me
3 something's happening around 2002, and again, just like I
4 explained with flock size, my job as an economist is to rule
5 out possibilities that reasonably could have led to this
6 pattern that weren't related to the conspiracy.

7 Q. Okay. Now, I note that in this slide, there is -- there
8 are two lines as well, one is dash line and the other is -- at
9 least in my copy, it's dotted, but it looks more solid on the
10 screen.

11 Would you tell us what those two lines reflect?

12 A. Yeah, those are what are just referred to as trend lines
13 and that allowed me to perform a simple econometric test to
14 determine whether the slopes of those two trend lines are
15 different, and I concluded based on standard trend line tests
16 that they're statistically different, again, at the 99 percent
17 level.

18 Q. All right. Now, you spoke to -- you talked about linear
19 trend analysis with flock size and then a regression model
20 you've explained. We've looked at a linear trend line, linear
21 trend analysis with regard to egg production.

22 Did you also do a regression model with respect to
23 egg production?

24 A. Absolutely. I did essentially the same thing I did with
25 flock size, only I tried to explain the number of eggs

1 produced. So it's -- it's the same idea, just looking at a
2 different variable. The number of eggs instead of the number
3 of hens to account for productivity effects.

4 Q. Did you prepare a slide or slides to reflect the results
5 of that regression model?

6 A. Yes, I did.

7 MR. BLECHMAN: If we could please turn to Slide 8.

8 BY MR. BLECHMAN:

9 Q. Tell us what is -- Slide 8 is titled -- well, disregard
10 the title.

11 What is reflected in this slide, which in smaller
12 print reads: Production analysis, 1990 to 2012? Do you see
13 that?

14 A. I do.

15 Q. All right. And this is -- this is -- there's two boxes
16 in yellow.

17 MR. BLECHMAN: I'm thinking let's blow those up in
18 Slide 9.

19 BY MR. BLECHMAN:

20 Q. And then you can walk us through what we're looking at.

21 A. Yeah. So, again, I'm just focusing -- I ran nine
22 different models to ensure that what I'm going to talk about
23 right now is robust and doesn't change if you mix around
24 different controls and so forth. So in this specification
25 that I call my main specification in my report, I'm looking at

1 the impact of those restrictions again, just like I was
2 looking at those restrictions in the flock-size model. And
3 what -- I don't know how much more detail you want me to go
4 into at this point.

5 Q. All right. Well, we have here in the yellow box that's
6 blown up, you've covered the restrictions, the main
7 specifications, it says: Log production. In lay terms, what
8 does that mean? And then I'm wondering if we have another box
9 that shows us -- there we go.

10 All right. So we've just added on the screen:
11 Percent reduction of egg production. And with these boxes
12 blown up out of your results, would you just walk us through,
13 at a high level, what the results are from this regression
14 model with respect to egg production.

15 A. Yeah. So the first thing I'll point out, let's focus
16 on -- let's focus first on these numbers right here. And I'll
17 start with this number right here, the adjusted R-square.
18 That's a measure of how much of the variation in egg
19 production my model is explaining, right? It's just a
20 diagnostic that econometricians and economists use to examine,
21 you know, how well a model is doing. And what this R-squared
22 indicates is that my model is explaining over 99 percent of
23 the variation that we observe in the independent variable,
24 okay?

25 Q. All right. Wait. Wait. That's a lot of economics in

1 one sentence. R-square and economic variables. So in the
2 context of this case, if you would, Professor Baye, just take
3 two or three sentences, tell us what you mean by that
4 statement.

5 A. What I mean by that is if you look at my number of
6 controls in this regression --

7 Q. And the controls are all those things that you showed
8 them before?

9 A. That's right.

10 Q. All right, keep going.

11 A. In this particular regression, I only have -- I only have
12 four controls. I've got a control for feed costs, that's this
13 one right here; I've got a control for the price of
14 electricity; and I've got real GDP that's kind of doing two
15 things, controlling for population, recessions, income, that
16 kind of thing; and I've got time, to control for things that I
17 haven't explained with the other variables, like perhaps
18 changes in animal welfare, other factors; I also have monthly
19 dummy variables to account for seasonality in the production
20 of eggs.

21 So you can't possibly put every conceivable variable
22 into a regression and have the regression work. There's
23 something called the degree of freedom problem. So what the
24 R-squared is telling us is, okay, with this model, how much of
25 the variation in egg production am I explaining? I'm

1 explaining 99.1 percent. So you say, okay, well, is it
2 possible that there's some other variable that I've excluded
3 that might be important? Anything's possible. But based on
4 that diagnostic, and other diagnostics that I've performed,
5 those possibilities are unlikely to materially impact the
6 conclusions that I have, and that's reinforced by the fact
7 that I do this across nine different specifications. I do it
8 for flock size, as we just discussed, I now do it for egg
9 production and I use a host of other methods as well. But
10 that's the first number there.

11 Q. All right. And just going through Slide 9, in summary
12 fashion, for Restriction 1, that's August 2002 to
13 January 2004; is that correct?

14 A. That's correct.

15 Q. And this is -- this is reporting on the results of your
16 model with respect to changes, if any, in the egg production,
17 the egg supply in the United States, correct?

18 A. That's correct.

19 Q. All right. And for that time period, what percent
20 reduction of egg production does the model report?

21 A. The point estimate is .2, which is a tiny reduction in
22 the production of eggs.

23 Q. For Restriction 2, February 2004 through July 2005, what
24 is the percent reduction of egg production reported by the
25 model?

1 A. .6 percent reduction.

2 Q. Restriction 3, for the period August 2005 through
3 January 2007, what is the model report for the percent
4 reduction of egg production in that time period?

5 A. 2.4 percent.

6 Q. For Restriction 4, which is February 2007 through
7 July 2008, what is the percent reduction of egg production
8 reported by your model?

9 A. 5.5 percent.

10 Q. Restriction 5, which is the time period August 2008
11 through December 2012, what is the model report as the percent
12 reduction of egg production for that time period?

13 A. 5.2 percent.

14 Q. All right. A few questions, if I might, Professor Baye.
15 I note on the left side of -- are you there?

16 A. Yeah.

17 Q. I note on the left side where it says: Main
18 specification log production for Restriction 4 -- this is
19 technical stuff, I apologize, but I want to just explain this
20 -- or understand this.

21 The number there is negative 0.056 and in
22 Restriction 4 the number there is 5.5 percent. Why the
23 difference, sir?

24 A. It's just a technical -- I mean, the numbers -- the
25 coefficients would exactly match the percent changes if the

1 percent changes were very small. When percent changes get
2 larger, there's a slight difference in the coefficient and the
3 actual percentage effect, and I've accounted for that in the
4 right-hand side.

5 Q. And is your answer the same for Restriction 5?

6 A. That's correct.

7 Q. In the last column on the right-hand box, there's a
8 reference to: Statistically significant at the 99 percent
9 level.

10 Do you see that?

11 A. You're talking about this right here?

12 Q. I am, yes, sir.

13 A. Yes.

14 Q. All right. And you've already explained to the jury what
15 that means. Is this definition of this column with
16 statistical significance at the 99 percent level have the same
17 definition you explained to the jury already?

18 A. Yes.

19 THE COURT: Mr. Blechman, would this be an okay time
20 for me to interrupt you and let the jury have a 10, 12-minute
21 break?

22 MR. BLECHMAN: Yes, Your Honor.

23 THE COURT: Okay, so we'll do that, folks. Please
24 enjoy the break. Come back in 12, 15 minutes. Again, please
25 do not discuss the case, but we'll resume at the end of the

1 break.

2 THE DEPUTY CLERK: All rise.

3 (Jury out.)

4 THE COURT: And you all can enjoy the break as well.

5 MR. BLECHMAN: Thank you, Your Honor.

6 Your Honor, while we're on the record, the
7 witness --

8 You can go out.

9 THE WITNESS: I can leave?

10 MR. BLECHMAN: Yeah.

11 I just wanted to put on the record something Defense
12 Counsel and I spoke about. We agreed that the rules invoke,
13 and counsel will not be speaking to the witness, but that the
14 witness -- counsel on both sides have agreed can talk to the
15 nontestifying economic consultant who is working with the
16 witness. In this case, there's someone in the courtroom
17 identified. I suspect they'll have --

18 THE COURT: You mentioned, you didn't identify him.

19 MR. BLECHMAN: Thank you. That I mentioned. And so
20 we've agreed on that.

21 THE COURT: Okay.

22 MR. BLECHMAN: And I just wanted to put that on the
23 record.

24 THE COURT: Fair enough.

25 MR. BLECHMAN: Thank you.

1 (After recess:)

2 (Witness resumes the stand.)

3 THE DEPUTY CLERK: All rise.

4 (Jury in.)

5 THE COURT: Okay, you can all sit down. Welcome
6 back.

7 Okay, Mr. Blechman, you may resume.

8 MR. BLECHMAN: Thank you.

9 BY MR. BLECHMAN:

10 Q. Professor Baye, we've rearranged the furniture ever so
11 slightly. We've moved that screen in front of you down and
12 we're hoping that everybody can see each other now. Let me
13 pick up where we left off. And I want to first ask you,
14 looking at Slide 9, which is still up on the screen there,
15 there's a reference on the left-hand side in that box to the
16 backfilling ban specification log, paren, production, close
17 paren.

18 Do you see that?

19 A. I do.

20 Q. Let's begin, if you would, please, by explaining to the
21 jury what is that specification?

22 A. The backfilling ban specification 3, Column 3?

23 Q. Yes. Yes.

24 A. It's just a specification. Another element of the
25 alleged conspiracy is the backfilling ban. And again, I'm not

1 an animal welfare expert, but the question is: Did the
2 backfilling ban have a material impact on the number of eggs
3 that are being produced? And the documentary record that I
4 reviewed indicates that somewhere between 3 and 20 percent of
5 hens die in a given year. So the matter of economics, you
6 might expect the backfilling ban to have an impact on egg
7 production. That's the rationale as an economist for looking
8 at this, to test that. And so what I did hear is: I
9 completely ignored other aspects of the conspiracy,
10 effectively assuming they had no effect on output, and
11 examined whether the implementation of the backfilling ban
12 impacted output. And when I do the regression, using the same
13 controls and -- that I've discussed ad nauseam, I find that
14 the backfilling ban reduced output by 2.1 percent.

15 Q. You mentioned in the answer you just gave that you
16 ignored other aspects -- I don't remember if you said
17 conspiracy, other aspects of something, whatever you said.

18 A. Um-hum.

19 Q. Would you -- would you explain to the jury, what do you
20 mean when you're doing an economic model, when you -- in the
21 context, let's say, of the backfilling ban, what it means to
22 say you ignore other aspects of -- whether it's the conduct or
23 whatever it is that you ignored, explain that and explain just
24 how that worked, in lay terms, please.

25 A. Yeah, so, you know, as I look at the record and I look at

1 the evolution of behavior in the industry, there's an
2 evolution which starts with communication by Don Bell in the
3 1990s, it starts with communication by the United Egg
4 Producers in the early 2000s, it ultimately evolves into what
5 this regression is all about, the cage space restrictions, and
6 the other restrictions imposed by the UEP.

7 What's important to recognize is that other things
8 are going on over time. In addition to the cage space
9 restrictions being tightened, the backfilling ban is being
10 implemented, the 100% rule is being enforced in differential
11 ways, so there's other things going on. So when I say we're
12 going to focus purely on the backfilling ban, it's important
13 to keep in mind that there are other things going on during
14 this backfilling ban period, the 100% rule is in place, the
15 backfilling ban is in place, and we've got a cage space
16 restriction. So what I'm just asking is, okay, if we just
17 take that date as the date in which the alleged conspiracy
18 might have impacted output, what happens? Does it change the
19 results? It's a way of addressing the backfilling ban
20 specifically but also providing an additional robustness check
21 on the other analyses that I've provided.

22 Q. And with that in mind then let's look over, if you would,
23 please, in the yellow box on the right-hand side where you
24 have backfilling ban, in the last line there, excuse me, where
25 it reads: Backfilling ban effective date February 2005, and

1 then percent reduction of egg production, what's the number
2 that you get there?

3 A. 2.1 percent reduction in egg production.

4 Q. And what does that 2.1 percent mean?

5 A. That means relative to the number of eggs that would have
6 been produced in the absence of the UEP restrictions,
7 production would have been 2.1 percent higher.

8 Q. All right.

9 A. Possibly.

10 Q. And then in the far right-hand column on the box in the
11 right under Statistical Significance At 99 Percent Level, you
12 say: Yes.

13 A. That's correct. With the same interpretation that I gave
14 earlier. It's really a 1 percent chance that I'm finding
15 effect that's not there but this is the way we think about it
16 often.

17 Q. Okay. Two clarifying questions before we move on. You
18 have used the word "parsimonious" a few times. And help me
19 help the jury understand what do you mean when you're using
20 that term in the context of the economic work you've done?

21 A. Yeah, so one thing as a journal editor I'm very skeptical
22 of is individuals who write papers that have a gazillion
23 explanatory variables to prove a result, okay? Because if you
24 search long and hard enough you can probably find a set of
25 variables that's going to make an effect go away, right? And

1 so the first thing I look for is a parsimonious model, a model
2 that uses as few explanatory variables as possible to identify
3 an effect. And once I do that, I say, okay, now can I
4 overturn that result by considering alternative controls and
5 so forth. And that's what I've done here.

6 Q. Okay. And if I've asked you this, I apologize, but one
7 of my colleagues sitting behind me, one of the lawyers has
8 said he's not sure I have. So we've used the term
9 "regression" -- you've used the term "regression" a number of
10 times in your testimony.

11 A. Yeah.

12 Q. What is a regression?

13 A. A regression is a statistical technique that's used in
14 economics to examine the relationship between explanatory
15 variables, in this case, all of the controls that I've been
16 talking about, those are called explanatory variables, and the
17 independent variable, the variable of interest. So, so far
18 we've talked about flock size as being an independent variable
19 and we've talked about the number of eggs produced as
20 independent variable. So a regression model is a mathematical
21 scientific statistical way of formally examining relationships
22 in data to help disentangle economic causation, if you will.

23 Q. Are the regression models that you have used in this
24 case, in connection with forming your opinions, models that,
25 in your opinion, based on your experience, are conformed with

1 generally accepted economic techniques?

2 A. Absolutely, and they're the same type of models that I
3 see in papers that I handle as a journal editor and they're
4 models similar to the models that the Bureau of Economics at
5 the Federal Trade Commission use to examine competitive
6 effects in a variety of contexts.

7 Q. In a little bit we're going to look at another model or
8 models that you've run. Does your answer just now to my
9 question apply with equal vigor to those models that you'll
10 discuss later in your testimony?

11 A. Yes.

12 Q. Finally --

13 A. With the exception of the VAR model. I think the VAR
14 model is not that commonly used.

15 Q. Okay.

16 A. But I find it to be a useful robustness check in a case
17 like this.

18 Q. All right. I'm going to resist the temptation to ask you
19 the acronym right now because we'll get to that. And when we
20 do, I'll ask you then.

21 Finally -- I'm not sure it's finally, but with
22 regard to Slide 9, do you consider the results of this
23 regression model to be conservative?

24 A. I do.

25 Q. Why?

1 A. Because the table that's behind us, before we blow it up,
2 includes nine different specifications. The specification on
3 the far right, Specification 9, basically includes the kitchen
4 sink as controls, throwing in lots and lots of things that
5 might impact egg production. The numbers that I'm discussing
6 here and the numbers that I rely upon in making my -- in
7 forming my conclusions are really the smallest impact that I
8 find across. There's maybe a period or two where the numbers
9 might vary, but generally, the effects that I'm identifying
10 here are among the smallest that I identify across all of the
11 approaches that I've used.

12 Q. Looking -- remaining on Slide 9 and looking at
13 Restriction Periods 1 and 2, that's the periods August 2002 to
14 January 2004, and February 2004 to July 2005, do you see that?

15 A. I do.

16 Q. The 100% rule, was it in place at that time?

17 A. Yes.

18 Q. And I note, nevertheless, that you find no statistical
19 significance at the 99 percent level to the results that you
20 report there of 0.2 percent and 0.6 percent, do you see that?

21 A. That's correct.

22 Q. Does that mean, Professor Baye, that the 100% rule is not
23 anticompetitive?

24 A. What it means -- I can't answer that yes or no.

25 Q. Well, tell us what it means then, please.

1 A. What it means is that we can't identify the effect of the
2 backfilling ban -- I'm sorry, the 100% rule separately,
3 because essentially it's in place during all these periods,
4 right. So you could ask the question, okay, in the first
5 period that it's introduced, did the backfilling ban have an
6 effect? And the answer to that is no. But that's the wrong
7 economic question if you were interested in the
8 anticompetitive question.

9 Q. What's the right question to ask?

10 A. Well, again, you've got to think as an economist.

11 Q. As an economist what's the right question to ask?

12 A. The question is: Did the 100% rule change the nature in
13 the market, the nature of the market in a manner that would
14 have ultimately led to reductions in output?

15 Q. You've studied the records in this case, have you not?

16 A. I have.

17 Q. If purchasers wanted to buy eggs produced pursuant to
18 Animal Welfare Guidelines, how should it work in a competitive
19 market?

20 A. Well, a competitive market, you would -- I mean, firms
21 would have the opportunity to buy Animal Care Certified eggs
22 for customers that cared about them, and they could purchase
23 other eggs from other producers or maybe even the same
24 producer if they didn't care about animal welfare. So much of
25 my research is on heterogeneity of consumers. I mean, you

1 look at the world and the politics, we're all over the map in
2 terms of how we view the world. People are the same with
3 respect to other choices they make in markets, and in
4 competitive markets, ultimately you can have competing
5 opportunities for consumers to either care or not care about
6 animal welfare. And I don't mean to imply that people that
7 don't buy certified eggs don't care about animal welfare.
8 They might prefer a different animal welfare standard, like
9 cage-free eggs, which actually do exist.

10 Q. As an economist and based on your review of the record in
11 this case, should people who want to purchase non-certified
12 eggs be able to do so? And if so, why?

13 A. Well, certainly as a matter of choice -- you're limiting
14 choice if you don't allow people to buy the type of eggs that
15 they want, especially if it results in higher prices. But I
16 think the bigger issue from an anticompetitive standpoint is
17 the impact of the 100% rule on the adoption of UEP Guidelines
18 in the first place.

19 Q. What impact -- withdrawn.

20 As an economist, what impact have you found the 100%
21 rule, then, to have had?

22 A. Well, as I indicated in my report, the 100% rule
23 effectively puts retailers in a position -- and I'm going back
24 to the period in time when the UEP Guidelines were called
25 Animal Care Certified. That's a pretty big statement to put

1 on a product, Animal Care Certified, okay?

2 So during this early phase of the UEP, they were
3 marketing their eggs as Animal Care Certified. What retailer
4 in their right mind would say, No, no, we don't care about
5 animal welfare, let's get those other eggs? So the whole
6 framing of the Animal Care Certified puts buyers in a
7 position, where as an economist, you'd expect people to
8 perhaps buy those eggs even if they didn't want to, which is
9 just the way marketing works, and that's the way, you know, if
10 the FTC, we worry about all kinds of issues related to
11 advertising. But the anticompetitive effect here is that by
12 putting that individual buyer in that position, it actually
13 can tip the market towards UEP Certified eggs.

14 Q. What do you mean by "tip the market"?

15 A. Well, once you get a critical mass of buyers buying
16 certified eggs, it makes it very difficult for a supplier
17 that's not providing certified eggs to exist. And in
18 particular, with the 100% rule, if a supplier signs a contract
19 with, say, Kroger for certified eggs, then that supplier with
20 the 100% rule is precluding itself from selling other markets.
21 So you effectively gobble up not only the business from Kroger
22 with certified eggs, you're shutting off a channel through
23 which other types of eggs could be produced that don't have
24 the certification label. And that's, as a matter of
25 economics, a restraint of trade.

1 Q. As a matter of economics, is the backfilling ban a
2 restraint of trade?

3 A. Again, I'm not an animal welfare --

4 Q. I understand.

5 A. I'm not an animal welfare expert, but I have reviewed,
6 you know, the documentary record and I've reviewed
7 Dr. Walker's analysis of the backfilling ban, and in my
8 opinion --

9 Q. Dr. Walker is the Defendants' expert, the economist,
10 correct?

11 A. That's correct.

12 Q. Please continue.

13 A. My opinion is that, at least -- I mean, maybe there's
14 some welfare benefits of the backfilling ban, but as a matter
15 of economics, the stories that I'm hearing have nothing to do
16 with an efficiency rationale for an industrywide policy of
17 backfilling.

18 Q. What do you mean -- I'm sorry, were you finished?

19 A. I think so.

20 Q. What do you mean by "efficiency rationale"?

21 A. So just to give you a couple of examples, okay, so one
22 story here is that, well, disease, we've got to have the
23 backfilling ban, otherwise birds are going to die, right? You
24 don't need an industry standard to do that. These guys have
25 tons of money invested in their birds. If backfilling

1 increases the risk of birds dying, they're going to lose
2 money. So maybe the UEP can say, well, you might want to
3 think about backfilling but it doesn't have to impose a
4 standard for that. So whether there's animal welfare reasons
5 for backfilling or not, that's a -- that story is not an
6 economically sound one.

7 Another example would be the, you know, the pecking
8 order story, right? It's important to recognize that during
9 this period, the house averaging method is in place. The
10 house averaging means that if you have a bunch of hens that
11 die in one cage, you could replenish that cage without
12 worrying about a pecking order, right? And the backfilling
13 ban precludes that.

14 Even more telling -- there's a third one that I
15 think is even more telling, and that is the conditions under
16 which a producer can violate the backfilling ban. A
17 catastrophic event like disease, that's when you want to start
18 putting additional chickens in cages is when you're worried
19 about a pandemic? And if so, why would you limit the number
20 of hens to 90 percent of where you started? That restriction
21 in and of itself is just an example of the restrictive nature
22 of the backfilling ban, in my opinion as an economist.

23 Again, you know, maybe -- maybe it's good for hens,
24 I have no opinion on that, but looking at the stories that
25 I've read about and the transcripts and depositions and so

1 forth, that's my economic opinion.

2 Q. All right. Let's move then from the regression models on
3 flock size and on eggs, and let me ask you this: Besides the
4 linear trend analysis that you explained before, with those
5 graphs with the lines, and besides the regression analysis on
6 flock size and on eggs, did you conduct any other statistical
7 analysis to measure the effect, if any, of the Defendants'
8 alleged conduct on flock size or the egg supply?

9 A. Yes, I did that VAR thing I was talking about earlier.

10 Q. All right, and I promised that -- so now tell us, what
11 does this acronym VAR stand for?

12 A. Vector autoregressive model.

13 Q. Vector autoregressive model, what in the world is that?

14 A. Well, it's a good question. So a vector autoregressive
15 model is a model -- let me just back up and remind the jury
16 that all the models we've talked about here, I've linked the
17 underlying allegations in the conspiracy to the data and
18 attempted to estimate effects, okay? I'm putting restrictions
19 on when the conspiracy started implicitly and when it ended
20 implicitly by doing this analysis, right?

21 One might worry that somehow, there's something else
22 going on during this period. There's some changes going on in
23 the marketplace that's somehow leading to results that aren't
24 really in the data, and the VAR model is a way of eliminating
25 that possibility because it doesn't use any data after -- in

1 my case, after 2002 to predict what prices would look like
2 before the conspiracy.

3 So it's a robustness check to ensure that the time
4 period that I examined and a whole host of other things aren't
5 contaminating the results.

6 Q. Did you, in fact, conduct a VAR analysis?

7 A. I did.

8 Q. Did you prepare a slide to show us the results of that
9 analysis?

10 A. I have a slide.

11 Q. Let's go to Slide 10, if you would, please.

12 A. Okay. So this -- I'm not lecturing.

13 Q. No, no, that's all right. Let's just -- for the record,
14 this is a slide, the title of which is Actual Flock Size
15 Versus But-For Flock Size VAR -- all in caps -- Model 1990
16 through 2012. Is that correct?

17 A. That's right.

18 Q. All right. Would you please tell us -- tell the jury
19 what they're looking at in this Slide 10?

20 A. Right. So I showed you earlier the but-for production --
21 I'm sorry -- the but-for flock size and the actual flock size.
22 This is the same graph. So this -- this line here, this raw
23 data plotted here is an actual graph of the USDA flock size
24 data. The -- this portion of the graph is --

25 Q. Doctor, which portion?

1 A. The -- I would say red portion, the portion that begins
2 in 2002, that lies above the -- again, if you're color-blind,
3 blue may not help you, the line below there.

4 Q. Okay. So it's the top line, roughly, that --

5 A. The top line --

6 Q. -- roughly that runs from 2002 through 2012, correct?

7 A. That's correct.

8 Q. All right. Please continue.

9 A. Yeah, so that's the prediction of the model, and the
10 beautiful thing about a VAR model -- it's got limitations, of
11 course, but the nice thing about the VAR model is in terms of
12 estimating the underlying parameters of the model, I'm
13 actually only using data to the left of that line right there.
14 I'm using data before 2002 to estimate the model.

15 So the underlying estimation cannot be contaminated
16 by what's happening after 2002, okay? So what I do is you
17 estimate that model. This particular model is just a standard
18 simple VAR I've got, and so what you do here is you just let
19 the data do the talking. That's what VARs do. The data do
20 the talking. You don't put an economic hat on other than
21 determine what are some variables that might be relevant.

22 So most of the work in a VAR model is done by this
23 flock size you're able here -- so you're lagging flock size.
24 So what you're assuming is flock size today depends upon flock
25 size yesterday, the flock size the day before and so forth.

1 And the value of that in the VAR model is it allows you to, in
2 an indirect way, to control for a whole host of things that
3 you may not have data on.

4 In addition to that, I control for corn prices with
5 lags, soybean prices with lags, real GDP with lags,
6 electricity, and again, I have my monthly dummies to account
7 for seasonality. So when you're all said and done, you
8 estimate the model using only data through 2002, and then you
9 project, given what you've learned about the past data, what
10 would -- what would the actual flock size look like given the
11 evolution of those variables that you've observed and that's
12 this top line right here.

13 Q. Would another way of explaining the results that
14 illustrate -- shown in Slide 10 be that the flock size between
15 1990 and 2002 is used as an indicator to suggest what flock
16 size, what you would expect for the period after 2002,
17 control -- subject to the control from these variables you
18 mentioned, corn and soy and so forth? You can correct me.

19 A. I didn't like you using the word "indicator."

20 Q. All right. Then --

21 A. Because I confuse the jury, it's not an indicator like we
22 had before. There are no indicators in this model. I'm not
23 forcing any structure, I'm not forcing any of the actions of
24 the alleged conspiracy to materialize it at any point in time
25 other than I'm going to -- I'm going to look for an effect

1 after 2002, which as a matter of economics, is when I observe
2 the UEP Guidelines, you know, first being implemented. So
3 that's the economic rationale for using that data.

4 But I'm not -- this does -- this does provide an
5 estimate of what the flock size would have looked like but for
6 the actions that are alleged in this case as being
7 anticompetitive.

8 Q. What is this VAR model telling you then? What is the
9 data telling you in terms of the results after 2002?

10 A. It's telling you that but for the alleged conspiracy,
11 flock size would be larger than it actually was, which is
12 consistent with what the structural estimation approach that I
13 used in the case.

14 Q. And by "larger," do you mean the space above the blue
15 line and below the red line after 2002?

16 A. Yeah, the gap here.

17 Q. And by "here," you're referring to the -- between the red
18 and the blue lines after 2002, correct?

19 A. That's correct.

20 Q. Please continue.

21 A. Yeah, the gap between the red line and the blue line
22 after 2002 widens and then shrinks a little bit, but the key
23 observation there is the gap is positive. The gap also lies
24 outside of the confidence interval. So the little dark bands
25 around that -- around that red line is a confidence interval

1 for the projection.

2 Q. Confidence interval, that's another economic term you're
3 going to have to help us understand.

4 A. It's like the 95 percent confidence that we're talking
5 about -- 99 percent confidence that we had before. This
6 confidence interval just indicates where you would expect the
7 range to be based on the estimated model that you've generated
8 and the fact that these only -- these overlap right down here
9 at the beginning, 2002 to 2004.

10 Q. These being the red and blue lines?

11 A. The red and blue lines don't really overlap, but that
12 shaded area kind of overlaps.

13 Q. Okay.

14 A. What that means is, yeah, there's evidence of an effect
15 during 2002 and 2003 and so on, but it's not -- it may not be
16 statistically significant.

17 Q. You explained, Professor Baye, that you're using in this
18 VAR model a data prior -- is it prior to 2002?

19 A. That's correct.

20 Q. All right. Why prior to 2002? Why did you select that
21 as the point in time at which to stop using data going
22 forward?

23 A. I used it because that's the data which the
24 UEP Guidelines were implemented. So I'm using that. I'm just
25 not -- I'm being completely agnostic. I'm throwing away my

1 economic hat and I'm not -- I'm being agnostic on whether
2 flock size is going to change at every restriction period that
3 I examined before to see if that changes the picture that I
4 get.

5 Q. All right. Now, this VAR model in Slide 10 measures
6 changes in actual versus but-for flock size, correct?

7 A. That's correct.

8 Q. All right. Did you -- did you also measure -- excuse me.
9 Withdrawn.

10 Did you also use the VAR model to measure changes in
11 egg supply?

12 A. That's correct, to make sure that there's not
13 productivity effects that I'm ignoring here.

14 Q. And did you prepare a slide to show us the results of
15 that model?

16 A. I did.

17 Q. Please turn to Slide 11.

18 Professor Baye, is this the slide to which you
19 referred?

20 A. It is.

21 Q. Would you please explain to the jury what is reflected in
22 this slide, starting with the title and then explain what it
23 shows.

24 A. Yes. So this is exactly the same econometric technique
25 that I explained earlier, only we're explaining egg production

1 instead of flock size, okay? So same idea, we use egg
2 production up to 2002. And then based on the estimated model
3 that's specified here, we won't go into the details of that at
4 this point, but based on those parameters, we then forecast
5 what the underlying egg production would be beyond 2002.

6 And as you can see here, again, in this region here,
7 we're not seeing much of an effect, but we're seeing -- in the
8 region around 2002, 2004, we're not seeing much of an effect,
9 but starting around 2005, 2006, we're seeing a gap in the red
10 and the blue, and that gap is statistically significant based
11 on the VAR.

12 Q. All right. Again, I don't think I've asked you this, but
13 I just -- whether it's idle curiosity or not, you've got here
14 on the bottom of this Slide 11 and other places "monthly
15 dummy" and we've seen that as a word that's been used in a
16 couple other documents that have shown parts of your model.

17 Would you please explain to the jury what that
18 means?

19 A. Yeah, so if you just look at this raw data right here
20 before 2002, that's the actual USDA data. Do you see those
21 spikes up and down, those jagged edges? That's seasonality,
22 right? They're seasonal patterns that are occurring in that
23 data. If we want to explain egg production, we have to
24 control for that seasonality. Otherwise, there's going to be
25 a lot of variation of what we're trying to observe. So the

1 monthly dummies are designed to capture the effects of that
2 seasonality.

3 Q. And what is a monthly dummy?

4 A. It's an indicator --

5 Q. Thank you.

6 A. -- that is turned on during a given month. So we're
7 going to allow production of eggs to differ depending upon
8 whether it's January, February, March, April, May, June, July,
9 onto --

10 Q. And so forth?

11 A. And so forth.

12 Q. All right. So in summary, based on your economic
13 analysis, did Defendants' anticompetitive conduct cause a
14 reduction of U.S. egg supply between 2.1 and 5.5 percent?

15 A. There's robust evidence of that, yes.

16 Q. All right. Let's turn to the next subject matter that
17 you took up. In conducting your economic analysis, did you
18 consider egg demand and egg elasticity?

19 A. I did.

20 Q. All right. And you briefly described what those terms
21 meant before, but let's -- let's dig a little deeper, if we
22 might, and move to Slide 13.

23 Did you prepare this slide to explain what price
24 elasticity means in terms of eggs?

25 A. Yes.

1 Q. Would you please explain to the jury what is price
2 elasticity with respect to eggs using Slide 13 as an aid?

3 A. Yeah, maybe we just populate the whole slide here, if we
4 can.

5 Q. Sure.

6 A. I know I put a lot up here, but it will make it easier
7 for me to talk.

8 Q. All right. Let's populate the whole thing.

9 A. So the idea of elasticity of demand is to measure how
10 sensitive consumers are to changes in prices or alternatively
11 how a change in output will impact the price consumers have to
12 pay in a competitive market. So in this example right here,
13 if you start out at Point A where there's 100 eggs, this point
14 right here is what the market equilibrium price for eggs will
15 be. And reading over here, the price of eggs is \$0.10, \$0.10
16 in eggs, about \$0.20 a dozen, if you will. So you can ask the
17 question if the quantity of eggs is reduced by only one egg,
18 and I've constructed this in a way that's exactly a 1 percent
19 reduction.

20 Q. So the 99 and the 100 on the bottom axis, that's the
21 number of eggs?

22 A. That's correct.

23 Q. Okay.

24 A. So suppose we reduce the number of eggs from 100 to 99,
25 so the supply curve shifts. It could be due to a change in

1 feed costs, it could be due to a conspiracy. The question is,
2 what happens to the price? If, in this case right here, that
3 1 percent reduction in price leads the price of an egg to go
4 from \$0.10 to \$0.11, that rise in price from \$0.10 to \$0.11 is
5 a 10 percent increase in price, okay?

6 So a 1 percent reduction in quantity leads to a
7 10 percent increase in price. So the elasticity of demand is
8 a way of quantifying that, and in particular, what I'll just
9 call the inverse elasticity of demand measures how much price
10 rises in response to a change in output.

11 Q. All right. There's a lot of eco stuff in there.

12 A. I know.

13 Q. Let's break this down. You mentioned supply curve?

14 A. Um-hum.

15 Q. Tell us what it is, and show us, please, or direct the
16 jury to where the supply curve is reflected in Slide 13.

17 A. The initial supply curve here is on this curve right
18 here.

19 Q. So you're referring to the bottom curve that runs from
20 the bottom left to the right?

21 A. That's correct.

22 Q. All right. And that's the supply curve?

23 A. That's correct.

24 Q. And there is a curve that appears immediately to the left
25 of the supply curve. What is it?

1 A. The blue curve is the demand curve. That's telling us
2 how much consumers will buy at each price. So, for example,
3 if the price is \$10, consumers will buy 100 units. If the
4 price rises to \$11, they'll only buy 99 units. And that's
5 what it means for demand to be inelastic. If the price rises
6 by 10 percent, the quantity demanded doesn't fall very much.
7 Again, as I talked about earlier, that's typically the case
8 for products that don't comprise a large percentage of a
9 consumer's budget.

10 Q. The example you gave earlier about the bubble gum and the
11 bubble gum machine, is that functionally a way to understand
12 changes in elasticity?

13 A. Yes.

14 Q. Okay. The jury -- we won't go into that again.

15 A. Yes.

16 Q. Okay. Did you conduct an analysis to estimate the
17 elasticity demand of eggs?

18 A. I conducted a number of analyses to do that.

19 Q. What did you do, sir?

20 A. Well, I did an econometric analysis to formally estimate
21 the inverse elasticity of demand for each of the products that
22 I had Urner Barry data on, and I also looked at the
23 documentary record to see what firms in the industry thought
24 their elasticities of demand were.

25 Q. When you said you did econometric analysis, tell us with

1 a little more granularity what you're referring to.

2 A. Yeah, I'm referring again to regression analysis where I
3 used a procedure called two-stage least squares that allows me
4 to formally estimate the elasticity of demand based on data
5 available in this case.

6 Q. Did you prepare a chart to show us the results of the
7 model that you ran with regard to elasticity that you just
8 referenced?

9 A. I did.

10 MR. BLECHMAN: May we go to Slide 14, please.

11 BY MR. BLECHMAN:

12 Q. Professor Baye, Slide 14 has a title, Estimated Demand
13 Elasticities and Price Increases Attributable to the Alleged
14 Conspiracy 1990 through 2012.

15 Do you see that title?

16 A. I do.

17 Q. All right. Sir, would you please tell the jury what is
18 reflected in Slide 14?

19 A. Well, this is just one set of the 68 elasticities of
20 demand I estimated based on the available data.

21 Q. Okay, stop there for a second. 68 elast- -- say that
22 again, please.

23 A. 68 elasticities of demand --

24 Q. All right.

25 A. -- for 68 different products. So the first --

1 Q. What does that mean? Right.

2 A. So the first product, U.S. Shell Eggs, Brown Extra Large
3 Midwest, that's the very first entry there.

4 Q. All right, I know it's hard for me to read. I can't
5 imagine on the screen. But you're referencing under Shell
6 Eggs, the first line that reads: UB Shell Eggs, Brown Extra
7 Large Midwest. Is that right?

8 A. That's correct.

9 Q. All right, please continue.

10 A. So I estimated an elasticity of demand for that product.
11 Looking at the bottom one here, I estimated an elasticity of
12 demand for shell eggs, white jumbo southern -- does that say
13 southern?

14 Q. Southeast.

15 A. Southeast. I need glasses.

16 Q. We both need glasses.

17 A. So the big picture is I specifically estimated these
18 elasticities, in particular the inverse elasticity for each of
19 these egg products, and then also -- I mean, and they're all
20 very close to that .1 that I used in the little hypothetical.
21 They're all around .1.

22 Q. Why 68?

23 A. Because that was the Urner Barry data that were available
24 going back to 1990. If you go back before then you lose a
25 bunch of data, so I used the data that's available. And it's

1 also tied to purchases of the Plaintiffs in this particular
2 matter.

3 Q. And the jury has heard about Urner Barry. But in a
4 sentence or two for context, what is it?

5 A. Yeah, it's a wholesale reporting. It reports wholesale
6 prices for eggs, not the prices you and I would pay, but the
7 prices that an entity like Kroger or Albertsons would pay for
8 eggs. And the documentary record that I reviewed indicated
9 that during this period, about 90 percent of all wholesale egg
10 transactions were linked in some way to the Urner Barry index.
11 It's a measure of the market price of eggs at the wholesale
12 level.

13 Q. And if we go through Slides 14, 15, 16, and 17, are these
14 just continued line items listing the regressions that you ran
15 among the 68 products?

16 A. That's correct.

17 Q. And is this for all the Plaintiffs?

18 A. Well, this is the demand -- the overall market demand.

19 Q. Excuse me, let me withdraw the question.

20 This is the -- the 68 you've explained, and for what
21 is the 68? For whom?

22 A. For these different egg products.

23 Q. Got it. All right. And did you -- does this model
24 reflect a result?

25 A. Yeah. So --

1 Q. Where should we turn for the result?

2 A. Well, I think I've got it highlighted on the next slide,
3 if I'm not mistaken.

4 Q. By "next slide," you're referring to Slide 17?

5 A. Yeah. So all I wanted to communicate here is, you know,
6 the estimates of the inverse elasticities allow me to very
7 precisely estimate the impact of the alleged conspiracy on the
8 prices paid by the Plaintiffs for different types of eggs and
9 egg products. I'm not assuming that the elasticity of demand
10 for every type of shell egg or egg product, be it a jumbo or a
11 large or be it dried eggs or liquid whites, I'm not assuming
12 that they're the same. I'm using the data to infer what the
13 elasticity is.

14 Q. All right. I want to break that down, if we could.

15 A. Okay.

16 Q. Starting with inverse elasticities, this is a term that
17 you've used a few times. And assume that I'm an economics
18 student or a layperson and -- would you explain the inverse
19 elasticities and how it worked in your model in lay terms?

20 A. Right. Conceptually the inverse elasticity is the
21 inverse of the elasticity. The elasticity of demand is going
22 to tell us if price goes up by 1 percent, how much does
23 quantity change.

24 The inverse elasticity says, if output falls by 1
25 percent, what happens to the price? Okay. And if you look at

1 the estimated -- let's just look at that overall average, if
2 we can.

3 Q. Of course.

4 A. The overall average elasticity is .11.

5 Q. And you're on Slide 17, correct?

6 A. I'm on Slide 17 and I'm looking --

7 Q. You're looking in the middle column that reads
8 "Elasticity" --

9 A. Right, and that's this number right here that I've
10 circled.

11 Q. Please continue.

12 A. So what that means, the elasticity of demand is minus
13 .11. That's highly inelastic. That means the consumers are
14 not very sensitive to changes in the price of eggs. It makes
15 economic sense to me.

16 This number right here, the inverse elasticity tells
17 me if output falls by 1 percent, how much does price go up?
18 This overall average means that if the price -- I'm sorry. If
19 the quantity of eggs shrinks by 1 percent, price is going to
20 go up by a factor of 9.53 percent. So a 1 percent reduction
21 in the price of eggs -- I'm sorry, in the quantity of eggs
22 increases price by 9.53 percent. So in terms of understanding
23 the impact of the conspiracy -- the alleged conspiracy on the
24 Plaintiffs, it's really the inverse elasticity that's going to
25 be helpful in doing that. But I just wanted to point that the

1 overall elasticity of demand for all these products is
2 consistent with what one would expect based on the underlying
3 economics and it's consistent with statements that I cite in
4 my report from other textbooks that indicate that the demand
5 for eggs is inelastic.

6 Q. All right. And there's also a reference to price
7 increases from backfilling ban specifications on the
8 right-hand side. Do you see that, Slide 17?

9 A. That's correct.

10 Q. And what is that about?

11 A. That would be based on the 2.1 percent reduction in
12 output that we estimated for the -- that we discussed for the
13 backfilling ban specification. This tells us how much the
14 price of each and every one of these shell eggs and egg
15 products would have increased as a result of that 2.1
16 reduction in output from the backfilling ban alone. And the
17 overall -- the overall average of that is consistent.

18 Q. And then there's -- to the left of that column are
19 several columns about price increases from the alleged
20 conspiracy main specifications. Do you see that?

21 A. I do.

22 Q. Would you please tell the jury what that refers to.

23 A. Yeah. So basically all this does is it takes those
24 estimated reductions in output that I discussed earlier and it
25 translates those into how much do prices go up. So when I

1 showed you that graph that maybe made you break out in hives,
2 we said a 1 percent reduction in output leads to a 10 percent
3 increase in price. I'm just quantifying that for each and
4 every one of these shell eggs and egg products. So the
5 2.1 percent reduction in output led to these increases in the
6 prices of each and every one of these products.

7 Q. All right. And in summary then, in lay terms, would you
8 please explain to the jury what is the meaning of the overall
9 average numbers and findings as reflected in Slide 17? Tell
10 us what this means in lay terms, please.

11 A. In lay terms, it says -- I mean, your mileage is going to
12 vary across different products in terms of the specific
13 elasticity. But if you just pick an average shell egg or egg
14 product, the elasticity of demand is about .1, minus .1.

15 Q. Did you look at the record in this case to evaluate
16 whether your economically determined elasticity is supported
17 by the record or not?

18 A. I did, yes.

19 Q. All right. And let me -- let me show you a few documents
20 and find out if these are examples of documents you've looked
21 at in the record to support your finding.

22 MR. BLECHMAN: If we can please bring up Slide 18.

23 Your Honor, this is Plaintiffs' Exhibit 151, which
24 is in evidence, I understand.

25 Your Honor, I apologize. I'm not sure that that's

1 in evidence. If I may have just a moment.

2 THE COURT: 151, did you say?

3 MR. BLECHMAN: I did, Your Honor, Plaintiffs' 151.

4 I'll just use it as a demonstrative. I don't want to slow the
5 process down, Your Honor.

6 THE COURT: Okay.

7 MR. BLECHMAN: Thank you.

8 BY MR. BLECHMAN:

9 Q. Professor Baye --

10 A. Is anyone seeing it?

11 Q. I think it's up, yes.

12 Professor Baye, Slide 18 is titled An Economic
13 Perspective on the United Egg Producers Animal Husbandry
14 Guidelines of U.S. Egg-Laying Flocks, November 25, 2002.

15 In the context of looking at the record and
16 assessing whether your economically determined elasticities
17 are supported by the record, please explain to us what is
18 shown in Slide 18.

19 A. Yeah, this is a paper that was in the files. I don't
20 remember precisely which -- which Defendant or
21 co-conspirator's file it was in, but when I'm searching that
22 large database that I described, one of the search terms I'm
23 using is elasticity. This is something that popped up. And
24 that elasticity shows -- this study shows that the elasticity
25 of demand is between minus .12 and minus .08.

1 Q. And this is a paper authored by Allan Rahn, R-A-H-N, from
2 Michigan State University, entitled An Economic Perspective on
3 the United Egg Producers Animal Husbandry Guidelines for U.S.
4 Egg-Laying Flocks. Is that correct?

5 A. That's correct.

6 Q. All right. And in this article you were referencing the
7 passage in the article about estimates of the price elasticity
8 of demand for eggs typically fall in the negative .12 to
9 negative .08 range?

10 A. That's correct.

11 Q. What does that tell you in terms of the economically
12 derived elasticity that you testified to earlier?

13 A. That it's consistent with other researchers who have
14 found the demand for shell eggs and egg products is highly
15 inelastic.

16 MR. BLECHMAN: Slide 19, please.

17 BY MR. BLECHMAN:

18 Q. Professor Baye, this is a United Voices newsletter. The
19 jury is familiar with United Voices. This one is dated
20 July 29, 2002.

21 For clarity, I'm not sure if it's in evidence, but
22 I'm simply going to use this as a demonstrative.

23 Is this a document that you read in connection with
24 your work?

25 A. Yes, it is.

1 Q. And what, if anything, did this document tell you about
2 the support or lack of support for the elasticity number in
3 your model?

4 A. Well, it's just a quote from the article. It's exactly
5 the same information, but what's interesting, as a matter of
6 economics, is that this information is being communicated to
7 members of the UEP to communicate to them that reduction in
8 output is going to result in higher prices. And in any event,
9 it's the same number that was described in the previous study.

10 Q. And by this information, are you referring to the passage
11 in this United Voices newsletter that reads: Estimates of the
12 price elasticity of demand for eggs typically fall in the
13 negative .12 to .08 range. This indicates that in the short
14 run, i.e. before additional cage space could be constructed
15 and a supply response realized, egg prices could increase 8 to
16 12 percent for every 1 percent of egg supplies are reduced?

17 A. That's correct.

18 MR. BLECHMAN: Slide 20, please.

19 BY MR. BLECHMAN:

20 Q. Professor Baye, Slide 20 is an Investors Business Daily
21 article dated July 10, 2007. It's identified as Plaintiffs'
22 Exhibit 408. I'm not sure if it's in evidence. I'm simply
23 going to use it as a demonstrative, sir.

24 Did you look at this document in connection with
25 assessing whether your elasticity derived from your model is

1 correct?

2 A. I did.

3 Q. And what did it tell you?

4 A. It tells me that demand for shell eggs and egg products
5 is highly inelastic.

6 Q. In that regard, were you referring, among other things,
7 to the statement in the article: 1 or 2 percent on the supply
8 side after effects prices 20 or 30 percent?

9 A. Yep.

10 MR. LEVINE: Your Honor, objection.

11 THE COURT: The reading of the hearsay.

12 MR. BLECHMAN: I'm going to move on, Your Honor.

13 THE COURT: Okay.

14 MR. BLECHMAN: Thank you.

15 BY MR. BLECHMAN:

16 Q. During your analysis, Professor Baye, did you consider
17 whether there is a relevant market? And if so, what is it?

18 A. I did.

19 Q. All right, well, then, let's talk about that. First, so
20 that we can tie some concepts together that you've already
21 covered, what is the relationship, if any, between elasticity
22 and relevant market?

23 A. Well, elasticity is important for two reasons. It, first
24 of all, is indicative of the number of substitutes for a
25 product. And secondly, it's important because it allows one

1 to directly perform the hypothetical monopolist test that the
2 Federal Trade Commission and the U.S. Department of Justice
3 require for establishing the existence of a relevant antitrust
4 market.

5 Q. All right. And for context, since you're going to
6 testify a little bit about this, remind us what is the
7 definition of inelastic demand.

8 A. Inelastic demand means that if prices go up a little bit,
9 consumers don't change their behavior very much. If prices go
10 up a lot, quantity and demand falls only a little bit. And
11 that permits a profit maximizing firm, if demand is inelastic,
12 to profitably increase price. Because the volume you lose is
13 more than offset by the higher price you're going to get.

14 Q. Let's now move to the -- to relevant market. What is a
15 relevant market in economic terms?

16 A. In formal economic terms or simple economics terms?

17 Q. In simple economic terms.

18 A. Simple economic terms is what I said earlier, and that
19 is, that's the market we want to analyze to look for
20 competitive effects.

21 Q. Does a relevant market consist of components?

22 A. It's consists of the product that we're examining.
23 That's called the relevant product. And it consists of the
24 geographic area in which you're examining potential impact,
25 and that is the relevant geographic market.

1 Q. Do you have an opinion about what is the relevant product
2 market in this case?

3 A. It's my opinion -- yes.

4 Q. What is your opinion?

5 A. It's my opinion that the relevant product market is eggs,
6 shell eggs for human consumption.

7 Q. All right. Are egg products included in the relevant
8 market?

9 A. Yes.

10 Q. All right. Do you have an opinion about what is the
11 relevant geographic market?

12 A. Yes.

13 Q. What is your opinion?

14 A. The United States.

15 Q. Let's look -- did you prepare a slide to explain that --

16 A. Yes.

17 Q. -- your opinion?

18 Let's look at Slide 22, if we would, please. Slide
19 22 is titled Analysis of Relevant Geographic Market.

20 Professor Baye, tell us what's shown on Slide 22,
21 please.

22 A. Slide 22 shows us during the relevant period how many
23 eggs were shipped into the U.S. from abroad that were consumed
24 in the U.S. So this --

25 Q. Go ahead.

1 A. This demonstrates that we're reliant as consumers in the
2 U.S. on U.S. egg producers to get our eggs. Over 99 percent
3 of the eggs we consume are domestically produced.

4 Q. Why don't you include imports of eggs in the relevant
5 geographic market?

6 A. Because you're looking for the impact of the market and
7 the question here, I need to talk about the hypothetical
8 monopolist test, if I may.

9 Q. You may.

10 A. So the formal way -- and the reason you use a formal way
11 is it helps you understand what's going on when you do
12 relevant market analysis. The formal definition of a relevant
13 market is the set of products and the geographic area in which
14 a hypothetical monopolist, hypothetical monopolist that was
15 the present and future producer of the product could
16 profitably increase price by a small but significant
17 nontransitory amount.

18 So, in other words, take a set of products and a
19 geographic area. So if that market became monopolized
20 hypothetically, that new entity, the monopolist could
21 profitably jack up prices. That's the -- that's the
22 definition. And I conducted a SSNIP analysis and concluded
23 that the relevant geographic market was the United States and
24 the relevant product market is shell eggs and egg products, or
25 all eggs for human consumption, if you prefer.

1 Q. SSNIP analysis, we've got a new acronym. Please explain.

2 A. And it's spelled S-S-N-I-P, which is often misspelled in
3 transcripts. It's an analysis that typically, it's a
4 hypothetical question, okay? You're just really trying to
5 focus the economic question on the product of interest here.
6 We're talking about the conspiracy impacting the price of
7 eggs, we're talking about the conspiracy impacting the price
8 of automobiles. We've got to focus on where we're going to
9 start looking for competitive effects.

10 So you can define a relevant market. Even if there
11 are no anticompetitive effects, you can still define a
12 relevant market. So market definition is different than
13 competitive effects analysis, and in this particular case, a
14 number of factors indicate that the market, relevant market is
15 in fact eggs for human consumption.

16 Do you want me to explain those or do you want to
17 ask questions?

18 Q. Explain. Please explain.

19 A. Yeah, I apologize.

20 Q. That's all right.

21 A. First of all, when I looked at the documentary record,
22 there's lots of quotes I have in my report, statements by
23 executives of the companies, people in the industry saying an
24 egg is an egg is an egg. So it doesn't matter if it's a
25 jumbo, it's a large, it's a medium. An egg is an egg is an

1 egg.

2 Other documents indicate that the egg market is just
3 one big pie divided up into different types of shell eggs and
4 egg products. Another document indicates that there are no
5 close -- essentially argues that there's no close substitutes
6 for eggs in terms of the amount of protein you get per dollar
7 spent, okay?

8 So as a matter of economics, if there are no close
9 substitutes for shell eggs for human consumption and the
10 elasticity of demand for eggs is minus .1 as the documents
11 indicate, then a hypothetical monopolist could profitably
12 increase the price for shell eggs used for human consumption.
13 That doesn't mean that the producers successfully did that in
14 this case, but what it means is shell eggs and egg products
15 for human consumption is a relevant product market.

16 Q. In summary then, Professor Baye, did you find that eggs
17 are highly inelastic?

18 A. I did.

19 Q. And in summary, did you find the relevant market are eggs
20 in the United States?

21 A. I did.

22 Q. In connection with your analysis, did you -- did you
23 examine whether the price of eggs paid by each Plaintiff
24 increased as a result of the reduced output of eggs in the
25 United States?

1 A. I did. And I've already shown them where that comes from
2 in the previous Exhibit 20, or whatever it was.

3 Q. Okay. In summary, how did you arrive at that conclusion?

4 A. I used the econometric model to estimate the conspiracy
5 on output. That's the reductions in output that came out of
6 the indicators that we described. I then used that in
7 conjunction with the elasticities of demand that I estimated
8 to precisely estimate how much the price of each and every
9 shell egg and egg product purchased by the Defendants would
10 increase as a result of that reduction in output.

11 Q. Did you conclude that each Plaintiff paid higher prices
12 to either Rose Acre or co-conspirators as a result of the
13 alleged unlawful conduct by Defendants in this case?

14 A. I did.

15 Q. Did you prepare a slide that helps to explain your
16 findings?

17 A. I did.

18 Q. All right. If we could go to -- I'm going to go first to
19 Slide 24. And, Professor Baye, you tell me if that's the
20 right slide.

21 A. Well, this shows the -- this doesn't formally show that
22 each and every Defendant paid higher prices for each and every
23 product.

24 Q. Right.

25 A. I'm sorry. Plaintiff for each and every product.

1 Q. All right. Let's start with Slide 25, if we might.

2 A. Okay.

3 Q. And I'm thinking that -- oops, got the wrong one here.

4 So let's start with Slide 24, which is in front of you.

5 A. Right.

6 Q. Let's do it that way and just keep this moving.

7 A. Yes.

8 Q. So what is reflected in Slide 24, please?

9 A. All I've done here is all those price increases that you
10 saw in that Table 20 that we talked about earlier, that are
11 based on that elasticity estimates and the output reductions,
12 I've just summarized what all those 68 different elasticities
13 are and the implied price increases for each one of those
14 during these periods. So, for example, let's just focus on
15 the backfilling ban, if that's okay, for purposes of
16 discussion.

17 Q. Sure.

18 A. So for shell eggs, across all different types of shell
19 eggs, whether they're brown, jumbos, medium, or whatever, the
20 price effects that I identified are between 13 percent as a
21 low and 26 percent as a high, higher as a result of the
22 backfilling ban. In terms of liquid eggs --

23 Q. Please.

24 A. -- the price increases are between rounding 18 percent
25 and 52 percent. For frozen eggs -- I guess if you want to see

1 where I'm looking, for frozen eggs, prices -- the prices --
2 price increases ranged from 17 percent to 34 percent, and for
3 dried eggs they ranged from 16 percent to 31 percent. That's
4 just a way of summarizing all those many numbers that I've
5 calculated based on my econometric methodology.

6 Q. All right. And the convention being used in this case is
7 that liquid, frozen and dried eggs are referred to as egg
8 products.

9 Is that consistent with your understanding?

10 A. That's correct.

11 Q. All right. And then you have shell eggs up above,
12 correct?

13 A. That's correct.

14 Q. All right. Now, in measuring to determine whether each
15 Plaintiff paid higher prices for eggs that they bought from
16 one or more co-conspirators, including Rose Acre, did you
17 account for -- did you account for grain-based contracts?

18 A. Yes.

19 Q. All right. What does that mean and how did you account
20 for it, if at all?

21 A. Yeah, so when you look at the data, all of these price
22 effects that I've estimated here are changes in the
23 Urner Barry prices, okay? And I indicated that 90 percent of
24 transactions are tied in some way to the Urner Barry price.

25 But --

1 Q. If I could stop you for a second and we go to Slide 26,
2 because this may be an aid, as you've described at this point
3 to the jury. I'm thinking it might help.

4 Kroger purchases of shell white from Rose Acre
5 Farms?

6 A. Yes. Let me get rid of this thing. That's a great --
7 that's a great slide. So what this slide shows you, the
8 red -- the red part there, I can't say high or low because
9 it's pretty much on top, but the red --

10 MR. LEVINE: Your Honor.

11 THE WITNESS: -- price series.

12 THE COURT: Excuse me.

13 MR. LEVINE: Dr. Baye can give his opinion, but he
14 cannot vouch for any of the underlying facts, and, therefore,
15 we would ask --

16 THE COURT: You're asking for the question to be
17 rephrased.

18 MR. LEVINE: To be rephrased and for -- Dr. Baye
19 cannot factually -- he cannot testify factually that --

20 THE COURT: Well, we don't know whether he can or he
21 can't. I don't know whether he's looked at all the invoices.

22 MR. LEVINE: Well, the demonstrative seems to
23 indicate --

24 THE COURT: Okay, so you've got a sort of an
25 objection.

1 MR. BLECHMAN: Let me rephrase, if I may,

2 Your Honor --

3 THE COURT: Go ahead.

4 MR. BLECHMAN: -- to keep this moving.

5 BY MR. BLECHMAN:

6 Q. Professor Baye, to what extent, if any, did you analyze
7 whether each Plaintiff paid more for eggs from one or more
8 co-conspirators, including Rose Acre, because of Defendants'
9 alleged conduct?

10 A. I examined the relationship between Urner Barry prices
11 and the relationship between those and the actual transactions
12 prices paid based on the data that was turned over, and I
13 produced a number of charts like this one that are in the
14 appendix to my report.

15 Q. By "actual transaction prices," I think you -- is the
16 language you used, whose actual transaction prices are you
17 talking about?

18 A. I'm talking about transactions prices based on Defendant
19 data and transactions prices based on Plaintiff data.

20 Q. All right. And what was done with that data, sir?

21 MR. LEVINE: Again, I would object to the extent
22 that he's acting as a fact witness. He can express his
23 opinion based on what he saw, but he cannot serve as a fact
24 witness.

25 THE COURT: Well, Professor Baye is here as an

1 expert witness to give opinions. That's why he's here.

2 Go ahead.

3 BY MR. BLECHMAN:

4 Q. Do you remember the question?

5 A. No, sir. No, sir.

6 Q. The truth is I don't either.

7 MR. BLECHMAN: So if we might have it read back.

8 (Record read as requested.)

9 THE WITNESS: So again, as I -- as I always do, I
10 start with just the raw data, what does the raw data look
11 like, just like I did with flock size and egg production.
12 This raw data here tracks the Urner Barry price of shell white
13 eggs -- shell white eggs and it compares it against -- and the
14 white eggs is the white, large, Midwest index, and it compares
15 that against the transactions data. And in this case, this is
16 the dark purple line, which means this is -- transactions
17 prices based on the Defendants' data, the data they turned
18 over in terms of discovery. And -- so that's the first thing
19 I did.

20 BY MR. BLECHMAN:

21 Q. All right. What did you do next?

22 A. So then I look at this data and I see that as the
23 documentary record suggested, the actual transactions prices
24 here tracked the Urner Barry index and, in fact, are pretty
25 much spot on for, you know, the period, you know, 2000, 2002,

1 2003 to 2012.

2 Q. What, if anything, did you do next in terms of the data?

3 A. Well, the next thing I did is I conducted regression

4 analysis to examine a separate regression analysis to examine

5 the relationship between transactions prices for 360

6 Plaintiff/Defendant co-conspirator combinations to determine

7 the extent to which individual Plaintiffs were paying

8 Urner Barry, or Urner Barry minus a discount, or possibly some

9 price that was completely unrelated to the Urner Barry index,

10 as would be the case with the grain-based contract that you

11 led with.

12 Q. So you're referring to Urner Barry index now. So let me

13 ask you this: What significance or relationship, if any, is

14 there between the Urner Barry price you're seeing and the

15 measurement of impact, if any, of alleged unlawful conduct on

16 the prices each Plaintiff paid for eggs bought from one or

17 more of the co-conspirators, including Rose Acre?

18 A. Well, that's what this analysis is designed to do, is to

19 ensure that there's a link between what I've observed in Urner

20 Barry prices and what actual amounts were paid by the

21 Defendants.

22 Q. What is the significance of that link? Withdrawn.

23 What is the significance, if any, of that link?

24 A. Well, if I look at the data and a particular Plaintiff

25 purchased eggs on a fixed price contract that was unrelated to

1 the Urner Barry index, the price would just be a horizontal
2 line here, and there would be no correlation between Urner
3 Barry price and the transactions price. And I would conclude,
4 based on that, that even though the Urner Barry price went up
5 significantly, for that transaction, the Plaintiff was not
6 injured, or if the Plaintiff was on a grain-based contract,
7 such that changes in the Urner Barry prices did not impact the
8 amount paid for eggs, then even though the Urner Barry prices
9 increased, I would say there's no relationship and there's
10 actually no harm to the Plaintiffs.

11 Q. Did you account for discounts, if any, that a given
12 Plaintiff received from a given co-conspirator, including Rose
13 Acre, in doing this analysis?

14 A. Exactly. That's exactly what the methodology is designed
15 to do, is to take into account the possibility that they may
16 not be on top of each other like this. It might be discounts
17 on occasion or for different products or for different
18 Plaintiff/Defendant co-conspirator combinations.

19 Q. All right.

20 MR. BLECHMAN: Your Honor, I see the time. I've got
21 a bit more, but not hours more. Do you want me to just keep
22 moving?

23 THE COURT: For -- if you have a bit -- a bit more.

24 MR. BLECHMAN: Well, I would say I probably have
25 another 20 minutes. It may be less than that.

1 THE COURT: Well, let's go for less.

2 MR. BLECHMAN: Okay. I don't want to keep going if
3 the Court wanted to stop. That's all.

4 THE COURT: No. Trust me, if I wanted to stop, I'd
5 tell you.

6 MR. BLECHMAN: I do trust Your Honor. Thank you.

7 THE COURT: Is everybody okay here?

8 MR. BLECHMAN: Okay. Thank you, Your Honor.

9 BY MR. BLECHMAN:

10 Q. So the analysis that you've just described with Urner
11 Barry and measuring impact, the amount of overpayment, if any,
12 for a given Plaintiff from a given co-conspirator, did you do
13 that analysis with respect to every Plaintiff?

14 A. That's correct.

15 Q. Did you do that analysis with respect to every
16 Plaintiffs' purchases of eggs from each co-conspirator? And
17 I'm including Rose Acre in that definition.

18 A. I did.

19 Q. All right, and what did you find, sir?

20 A. Well, I've concluded that everyone together spent about
21 \$3.5 billion on eggs. The amount purchased by different
22 Plaintiff -- Plaintiffs differ across different
23 co-conspirators. So what I did is I just put together a table
24 for purposes of my testimony today on whether or not
25 individual Plaintiffs purchased individual -- purchased

1 quantities of eggs that would have been impacted by the -- by
2 the market price increases that I've observed and I put those
3 in a table.

4 MR. BLECHMAN: All right. If we could go to Slide
5 28, please.

6 BY MR. BLECHMAN:

7 Q. Professor Baye, is this the table to which you were
8 referring just now?

9 A. It is.

10 Q. This is titled Summary of Plaintiffs' Purchases From
11 co-conspirator (including Rose Acre). Tell the jury, please,
12 what is reflected in Slide 28, sir.

13 A. Well, across the top is Plaintiffs A&P, Albertsons,
14 Giant, and so forth. I won't read all those. And those were
15 given to me by counsel. They wanted me to put this table
16 together for purposes of today's conversation. And then below
17 them, what you have is individual co-conspirators or
18 Defendants that actually purchased -- I'm sorry, that actually
19 sold each of these individual retailers' products. So, for
20 example, for A&P, A&P bought product from Cal-Maine Foods,
21 Hillandale, ISE America, Sparboe Farms, and this is all during
22 the period in which my econometric analysis is finding
23 statistically significant output reductions and price
24 increases. So I can say that A&P suffered injury from
25 Cal-Maine, Hillandale, ISE America and Sparboe Farms as a

1 result of the decline in output stemming from the alleged
2 conspiracy.

3 Q. Is it your opinion, Professor Lay -- listen to me, excuse
4 me.

5 Is it your opinion, Professor Baye, that Albertsons
6 overpaid for eggs -- withdrawn.

7 Is it your opinion, sir, that as a result of the
8 Defendants' alleged unlawful conduct, that Albertsons was
9 overcharged for eggs that it purchased from each of the four
10 companies that are identified in each column?

11 A. Yes.

12 Q. Is it your opinion, sir, that Giant Eagle was overcharged
13 by each of the companies identified in its column as a result
14 of the unlawful conduct alleged by Defendant -- alleged by
15 Plaintiffs in this case?

16 A. Yes.

17 Q. And then there's a reference to H.E. Butt and Hy-Vee, and
18 Kroger, and Publix, and Roundy's, and Safeway, SuperValu,
19 Walgreens, and Winn-Dixie, correct?

20 A. That's correct.

21 Q. Each of those are Plaintiffs here?

22 A. That's correct.

23 Q. And under each of these named Plaintiffs are listed
24 companies, correct?

25 A. That's correct.

1 Q. So with regard to Hy-Vee, is it your finding, sir, that
2 Hy-Vee was overcharged for eggs that it purchased from
3 Hillandale, Michael Foods, Rose Acre, and Sparboe as a result
4 of the Defendants' alleged unlawful conduct?

5 A. Yes.

6 Q. Is it your opinion, sir, that Kroger was overcharged for
7 eggs that it bought from Cal-Maine, Michael Foods, Midwest
8 Poultry, Moark, National Food, Rose Acre, and R.W. Sauder as a
9 result of the Defendants' unlawful conduct alleged in this
10 case?

11 A. Yes.

12 Q. Is it your opinion, sir, that Publix was overcharged as a
13 result of the Defendants' unlawful conduct in this case by
14 Cal-Maine, Country Charm, and Michael Foods?

15 A. Yes.

16 Q. Is it your opinion, sir, that Roundy's was overcharged
17 during the alleged conspiracy by Michael Foods as a result of
18 the Defendants' unlawful conduct alleged in this case?

19 A. Yes.

20 Q. Professor Baye, with regard to Safeway, is it your
21 opinion that as a result of the Defendants' unlawful conduct
22 in this case, Safeway was overcharged for eggs that it bought
23 from Cal-Maine, Hickman's Egg Ranch, Michael Foods, Moark, and
24 National Food Corporation?

25 A. Yes.

1 Q. With regard to SuperValu -- and I'm just looking to make
2 a record here, sir -- is it your opinion, that SuperValu was
3 overcharged as a result of the Defendants' unlawful conduct in
4 this case based on eggs that it purchased from Cal-Maine,
5 Hickman's Egg, Hillandale, ISE America, Michael Foods, Moark,
6 National Food, Norco, Oakdell Egg, Rose Acre, R.W. Sauder,
7 Sparboe, Weaver, Wilcox, and Zephyr Egg?

8 A. Yes.

9 Q. And two more. With regard to Walgreens, is it your
10 opinion, sir, that Walgreens was overcharged by the Defendants
11 and others as a result of the unlawful conduct alleged in this
12 case, for eggs that it bought from Cal-Maine, Hickman's Egg,
13 Hillandale, and R.W. Sauder?

14 A. Yes.

15 Q. And finally, with regard to Winn-Dixie, is it your
16 opinion, sir, that Winn-Dixie was overcharged for eggs that it
17 bought from Cal-Maine and Weaver Bros. as a result of the
18 alleged unlawful conduct by the Defendants and co-conspirators
19 in this case?

20 A. Yes.

21 Q. All right. And I'm told I missed H-E-B. So let's go
22 back to H-E-B. Apologies.

23 With regard to H-E-B, is it your opinion, sir, that
24 as a result of the Defendants' unlawful conduct alleged in
25 this case, H-E-B was overcharged for eggs that it bought from

1 Cal-Maine Foods?

2 A. Yes.

3 Q. With regard to the names that appear in this chart --
4 let's find out the source of those names.

5 MR. BLECHMAN: And to do that, I want to go, if we
6 could, to Slide 29, please.

7 BY MR. BLECHMAN:

8 Q. Can you -- do you have that in front of you? Here we go.

9 Professor Baye, do you have that?

10 A. I have it.

11 Q. Good. All right. This is a chart that reads:
12 Co-conspirators are assumed to include the following
13 producers.

14 Do you see that?

15 A. I do.

16 Q. And it identifies there a number of companies who are
17 identified in that chart that we just saw, I'm just going to
18 read them for the benefit of the record, I apologize if we
19 take a moment. Cal-Maine, Country Charm, Hickman Egg,
20 Hillandale, ISE America, Michael Foods, Midwest Poultry,
21 Moark, National Food, Norco -- halfway there, Quality Egg,
22 Oakdell, Ohio Fresh, Rose Acre, R.W. Sauder, Sparboe, Tampa
23 Farms, Weaver Bros., Wilcox, and Zephyr Egg. Do you see that?

24 A. I see it.

25 Q. All right. Where did you get those names, Professor

1 Baye?

2 A. You told me to put this together based -- as a subset of
3 the information that was in my expert report and Exhibit 7.

4 Q. And by "you," do you mean counsel for Plaintiffs?

5 A. That's what I mean.

6 Q. Did you populate this chart with these names upon
7 instruction from counsel?

8 A. That's correct.

9 Q. All right.

10 MR. BLECHMAN: If we could go to Slide 27, please.

11 BY MR. BLECHMAN:

12 Q. Slide 27 is titled SuperValu Purchases of Shell Egg
13 Medium White from Rose Acre Farms.

14 Do you have that?

15 A. I do.

16 Q. All right, tell us what this slide shows, please.

17 A. This is just another example of the relationship between
18 the Urner Barry index and the transaction prices of -- between
19 different Plaintiff and Defendant combinations that I
20 previously showed with respect to Rose Acre. They all look a
21 little bit different. And this one indicates -- demonstrates
22 that, you know, unlike Kroger, SuperValu is actually paying
23 Urner Barry less a discount.

24 Q. Okay. Now, if we could move forward to Slide 29, again,
25 and then I'm going to take us to an explanatory slide

1 thereafter.

2 THE COURT: Sorry. Trying to bite me.

3 BY MR. BLECHMAN:

4 Q. All right. These are the co-conspirators in Slide 29,
5 correct?

6 A. That's correct.

7 Q. Okay. Now, did you do an analysis to assess the share of
8 flock size by a vendor?

9 A. I did. In my Exhibit 7 of my report, I believe it was.

10 Q. Okay. And let's take a look, then, at Slide 30, if we
11 could. And tell us what is reflected in Slide 30, please.

12 A. This is the cumulative flock size controlled by UEP
13 members and UEP Certified members, and I don't recall the date
14 explicitly. It should be indicated on the table. Is there a
15 date on the table?

16 Q. I can't read it, but we'll figure that out.

17 A. At some point in time -- and it shows that at this point
18 in time, 83 percent of flocks were controlled by UEP Certified
19 companies.

20 Q. What is the significance, if any, to you, sir, in
21 connection with your economic work, to these numbers?

22 A. Well, the -- what's amazing to me as an economist is how
23 quickly the market tipped towards the UEP Certified Program.
24 And what this indicates is by this point in time -- oh, this
25 is 2004. I guess if I could read it I'd know what date it is.

1 2004.

2 It shows that by 2004 83.6 percent of flocks were
3 controlled by UEP Certified companies. And what that means is
4 that, very quickly, in my opinion, as a result of the 100%
5 rule and monitoring and other actions that the UEP implemented
6 along the way, it effectively hit a critical mass such that
7 after this date virtually everyone had little choice but to
8 join the UEP Certified Program.

9 Q. Did you take a look at the record in this case, to
10 evaluate whether the 83.6 percent, percentage, for example, is
11 consistent and supported by the facts?

12 A. Yes.

13 Q. All right. Let me show you Slide Number -- the next
14 slide, 31, I think. And tell us, what is Slide 31? Does that
15 help you explain this?

16 A. Yeah, it's just a report, a farm animal welfare report,
17 that -- the table that was put together that I showed you
18 earlier was put together by my staff at my direction based on
19 data in the record. This is an independent verification of
20 that number, which is -- which is pegging 85 percent of the
21 flocks is implementing the ACC Guidelines.

22 Q. All right. And is a document like this and other
23 documents that you reviewed, Professor Baye, consistent or
24 inconsistent with your economic findings?

25 A. It's consistent.

1 Q. Okay. As an economist, sir, what role, if any, does
2 enforcement play in the effectiveness of a conspiracy?

3 A. It's easy for a cartel to get together and jump up and
4 down and say, Hey, let's restrict output, raise price and get
5 rich; but once prices rise, each individual producer has an
6 incentive to cheat on that collusive agreement. So absent
7 some type of mechanism to enforce the collusive agreement, the
8 cartel is unlikely to be successful.

9 So in the case of a trade association, rules are
10 important, and then a mechanism to monitor and ensure that
11 members are complying with the program.

12 Q. In connection with the analysis, the economic analysis
13 you did in this case, did you find any mechanism or mechanisms
14 to enforce the alleged conspiracy?

15 A. Yes.

16 Q. What did you find?

17 A. There were audits -- there were audits, and monthly
18 compliance reports indicated, and the guidelines themselves.

19 MR. BLECHMAN: If we could turn to Slide 32, please.

20 BY MR. BLECHMAN:

21 Q. Tell us what is shown in Slide 32, sir.

22 A. Well, this is just indication as early as 2003 the UEP
23 had imposed annual audits as part of their compliance
24 guidelines, and they also had to file monthly compliance
25 reports with the UEP. And as a matter of economics, this is

1 just a way of monitoring who's doing what in the industry, if
2 some people aren't complying, some people are complying, you
3 can point out those that are and aren't.

4 Q. As an enforcement mechanism and as an economist, what is
5 the significance of the audit or enforcement mechanism like
6 that to effectiveness of the conspiracy?

7 A. It makes the conspiracy more likely to be sustained or
8 maintained.

9 Q. All right. Let's turn to the subject of exports, if we
10 might cover that. Did you examine Plaintiffs' allegations
11 regarding coordinated export -- alleged coordinated exports in
12 this case?

13 A. Yes.

14 Q. What did you do in connection with that analysis, sir?

15 A. Well, I initially looked at the record with the intent of
16 attempting to incorporate that into an econometric model. But
17 my review of the evidence similar to my analysis of the -- of
18 the short-term measures indicated that these observations were
19 kind of one off short-term things randomly occurring over
20 time. And as a consequence I couldn't -- I couldn't formally
21 estimate those in an econometric framework because they're
22 more or less occurring at random points in time. But I was
23 able, in the case of exports, to actually quantify the impact
24 on price of the coordinated exports in a few instances.

25 Q. How did you measure the impact on price from exports?

1 A. I used the results from the elasticity of demand and made
2 a conservative assumption about what the elasticity of demand
3 was for the eggs that were exported.

4 Q. Did you prepare a slide to reflect the results of your
5 analysis?

6 A. I did.

7 MR. BLECHMAN: If we might turn to Slide 33, please.

8 BY MR. BLECHMAN:

9 Q. Professor Baye, in front of you is Slide 33, which is
10 titled Price Effects of the USEM Coordinated Exports, 2006
11 through 2008.

12 Do you see that?

13 A. I do.

14 Q. Would you please explain to the jury what is shown in
15 this slide?

16 A. Yeah. So these are documented cases of exports by the
17 USEM, and for each of these months and years, my staff
18 collected information on the size of the export, compared that
19 to the total U.S. egg consumption in that period to compute
20 how much the export of the products associated with the
21 coordinated exports impacted U.S. quantities.

22 So in this first instance, that October 6 reduced
23 output by minus .41 percent, and we know since the demand for
24 eggs is inelastic, a small reduction in output leads to a
25 larger increase in price, and in this case, the estimated

1 price increase is 2.57 based on the conservative methodology
2 of taking all of those estimated inverse elasticities that
3 I've estimated and using the one that gives the smallest price
4 response to the output reduction. And that gives us the
5 2.57 percent and you can see that each of these are
6 quantified.

7 So again, this illustrates that the coordinated
8 exports, the industry acting in concert had the effect of
9 eliminating eggs that would have otherwise been sold in the
10 U.S., and because the demand for eggs is highly inelastic, it
11 resulted in elevated prices for these months.

12 Q. All right. And you were referring, when you were
13 referring to the results, to the two right columns on the far
14 side of Slide 33?

15 A. The penultimate column, this one right here.

16 Q. So you're referring to the column Percent Decrease in
17 Domestic Sales Due to Coordinated Export. Correct?

18 A. Yeah. That's how many eggs the export took off the
19 market in percentage terms, and the final column tells us how
20 much prices went up as a result of that, using, again, a
21 conservative measure of the elasticity of demand.

22 Q. All right. And so for the month October 2006, you find
23 the percent decrease in domestic sales due to coordinated
24 exports at negative .41, percent, correct?

25 A. That's correct.

1 Q. And the percent increase, is that the percent increase in
2 price?

3 A. That's correct.

4 Q. Egg price?

5 A. In -- yeah, in egg prices as a result of that coordinated
6 import and I'm assuming that all of those eggs --

7 Q. You mean export?

8 A. Export.

9 Q. Okay.

10 A. And I'm assuming that all of those eggs had an elasticity
11 of minus 6.1, which is the elasticity -- it's the smallest
12 price effect you could estimate off of the results that I
13 have.

14 Q. And for 2006, that effect was 2.57 percent, correct?

15 A. That's correct.

16 Q. January 2007, the decrease was 1.35 percent with a price
17 increase effect of 8.69 percent, correct?

18 A. That's correct.

19 Q. For February 2007, the decrease was 1.48 percent with a
20 price increase effect of 9.53 percent, correct?

21 A. That's correct.

22 Q. April 2007, the decrease in the supply was .91 percent
23 with an increase in price of 5.72 percent, correct?

24 A. That's correct.

25 Q. October 2007, the decrease was .58 percent and an

1 increase in price of 3.61 percent, right?

2 A. That's correct.

3 Q. And again, just so we have a record here, June 2008, the
4 decrease in supply was .47 percent and the increase in egg
5 price was 2.91 percent; is that right?

6 A. That's correct.

7 Q. All right. I notice, Professor Baye, that in this Slide
8 33, the first month that you report is October of 2006.

9 Do you see that?

10 A. I do.

11 Q. All right. Why are you starting the reporting in October
12 of 2006 and not earlier?

13 A. I sent my staff out to try to collect data that allowed
14 me to actually compute these effects. So while I can observe
15 in the United Voices and other contemporaneous documents that
16 there were exports and they were coordinated and they were
17 often sold at a loss, I was unable to gather the information
18 needed to actually compute the effects.

19 Q. Okay. Let's talk about short-term measures for a moment
20 or two, or a minute or two, if we might. You testified
21 earlier about short-term measures as one of the three
22 anticompetitive actions that are part of Plaintiffs'
23 alleged -- allegations in this case, correct?

24 A. That's correct.

25 Q. All right. And are short-term measures included in the

1 measurement of impact of the Defendants' alleged
2 anticompetitive activity someplace in your model?

3 A. No, they're not.

4 Q. All right. Why is that?

5 A. Because my review of the record indicates that -- at
6 least in my opinion as an economist, that while the UEP was
7 certainly attempting to coordinate, coordinated flock
8 reductions and so forth, it -- in my view, those short-term
9 measures were unsuccessful and it's consistent with my view
10 that the conspiracy, you didn't just wake up one day and you
11 have a conspiracy to reduce output.

12 The documentary record in my report -- that's
13 summarized in my report, indicates that, you know, as far back
14 as the 1990s, there were communications in the industry
15 indicating that to raise prices, we've got to reduce output.
16 This is commodity market. The firms' profits are -- they're
17 scrambling to make money and they're scrambling to find
18 mechanisms to jack up the price.

19 It's not unusual in highly competitive markets for
20 firms to suffer problems like that, and in the airline
21 industry is a classic example of an industry that has had, you
22 know, tough times over the years. Hopefully they don't get
23 together and try to act in concert to jack up prices, but the
24 temptation is always there when you're facing tough economic
25 times.

1 Q. Are you saying, in other words, that there's no sustained
2 measurable effect of the short-term measures on output or on
3 price?

4 A. That's correct.

5 Q. In short-term periods, are you saying that there's no
6 effect on either output or price because of short-term
7 measures?

8 A. What I'm saying is there's no measurable effect. I'm
9 trying to come up with scientific methodology to quantify
10 effects.

11 Q. I'm sorry. Please continue.

12 A. No.

13 Q. By saying "no measurable effects," are you saying that
14 there were, in fact, no effects?

15 A. No, I'm not saying that.

16 Q. Then please help us understand the difference between
17 saying there -- there are measurable effects but you're not
18 reporting any in your model?

19 A. Well, I wouldn't say that there are measurable effects
20 that I'm not reporting. I would just say I'm unable to
21 reliably measure effects to determine if there are measurable
22 effects or not. The documents suggest that there are effects.
23 But you can read documents as well as I can. I'm not in a
24 position to use my scientific knowledge to help you understand
25 that -- that information.

1 Q. All right. By the way, before you testified today, did
2 you meet with Plaintiffs' counsel?

3 A. I met with you yesterday, when my flight arrived around
4 noon.

5 Q. Okay. Last area I think I have for you has to do with
6 addressing some comments that have been offered by the
7 Defendants' economist, Dr. Walker, whom you referred to
8 earlier. Let me begin first, if I might, with covering the
9 subject of the estimated conspiracy effect based on a single
10 indicator for the entire period. That's a lot of eco speak.

11 So I want to ask you first to please explain your
12 understanding of what is Dr. Walker's comment on this point
13 and tell us what is your response, please.

14 A. Yeah. So part of Dr. Walker's reply is to take an
15 econometric model that is essentially my model with my
16 controls and stick in one indicator, one conspiracy indicator
17 that is -- in one instance tied to language in the complaint
18 to the data, in another instance including one conspiracy
19 dummy starting in 2002, and to assume the conspiracy had the
20 same effect over all time. And based on that model, he
21 concludes that the alleged conspiracy resulted in more eggs.
22 That's his --

23 Q. What is your response to your understanding of his
24 comments?

25 A. In terms of the latter example that I gave you, one can

1 actually do an F-test to test his hypothesis that only one
2 indicator variable is appropriate, or you can include five to
3 adjust for each stage of the conspiracy, and I reject at the
4 99 percent level his model in favor of a model that has the
5 five conspiracy indicators.

6 Q. Would you explain in lay terms -- and not include a
7 reference to an F-test -- why you disagree with
8 Dr. Walker's comment on this point?

9 A. Because it's not based on -- it's not based on science,
10 and the prediction of his model is not tied to the academic --
11 I'm sorry -- to the record in the case. And it makes
12 nonsensical predictions.

13 Q. Why do you say it makes nonsensical predictions?

14 A. Don Bell predicted that a reduction in egg production is
15 going to result in ultimately a 26.4 reduction in flock size,
16 okay? His prediction is flock size goes up if you put birds
17 in smaller cages.

18 Q. Another comment that Dr. Walker --

19 A. Bigger cages --

20 Q. Excuse me.

21 A. -- or fewer birds in a -- you know.

22 Q. Well, please finish.

23 A. Or fewer birds in a given-sized cage.

24 Q. Okay.

25 A. Sorry.

1 Q. A second of four points I'm going to be covering here,
2 Dr. Walker has had comments about running a regression based
3 only on the Urner Barry pricing, and you've addressed Urner
4 Barry pricing before.

5 Would you please explain to the jury your
6 understanding of Dr. Walker's comment and whether you agree or
7 disagree and why.

8 A. Yeah, I think the record clearly shows that the prices
9 that the customers pay are tied to Urner Barry indices, and
10 Urner Barry indices are indicative of the types of prices that
11 one would want to look at if one's examining the impact of
12 conspiracy.

13 Q. Did you find any price effects from Dr. Walker's
14 analysis?

15 A. I actually looked at my analysis and came up with some
16 price analyses.

17 Q. What did you find?

18 A. I found that the actual prices that I predict based on my
19 econometric models are consistent with the underlying trends
20 that have existed in the data over a long period of times and,
21 in fact, the prices are, in fact, elevated relative to what
22 they would have been but for the conspiracy.

23 Q. A third comment by Dr. Walker is the -- channeling the
24 Defendants' claim, that egg prices in the market were already
25 elevated at historically low levels in connection with that

1 historic and during the conspiracy period.

2 Are you familiar with that comment by Dr. Walker?

3 A. I am.

4 Q. All right. And let me show you Slide 34, which is a
5 slide from -- actually from Dr. Walker.

6 Are you familiar with it?

7 A. I am.

8 Q. All right. And the jury, I think, has actually seen --
9 may have seen this slide earlier in opening. First, tell us
10 what your understanding is of Slide 34, and if you would,
11 please comment on whether you agree or disagree with
12 Dr. Walker's comment and why.

13 A. Yeah. So, again, this is just a graph of his measure of
14 the wholesale shell eggs price, and what he's done is he's
15 divided that by the cost of living index, a price index. And
16 when you look at the underlying data that he used to do that,
17 it actually distorts the pattern and prices. This pattern
18 right here, as an initial matter, is not helpful for
19 understanding whether the conspiracy impacted the prices paid
20 by actual Plaintiffs in this matter.

21 Secondly, and perhaps more importantly, as I tried
22 to illustrate throughout the analysis, you can't prove
23 something just by looking at a graph, okay? You have to
24 formally control for factors that might lead to these changes.
25 Dr. Walker's graph here provides no control, except this

1 control of dividing by a price index. That's not the
2 scientific way for examining whether the conspiracy impacted
3 the price of shell eggs.

4 Q. Did you prepare a slide to explain this point?

5 A. Yeah. I've got two slides, actually.

6 Q. All right. Slide 35, please. Tell us what is in Slide
7 35.

8 A. Yeah, so what Slide 35 is, and Slide 36, I'm going to
9 show you --

10 Q. Do you want them up together or one at a time?

11 A. No. One at a time is fine.

12 Q. Very well.

13 A. But I just want to point out that the products that I'm
14 showing you here are actual Urner Barry shell egg prices for
15 white large eggs in the Midwest, 1990 to 2012. If you can go
16 to the next one also.

17 Q. Slide 36, please.

18 A. Yes. And Urner Barry shell white extra large Midwest.
19 What was the other one? I kind of --

20 Q. We have two of the same slide?

21 A. No, we haven't gone to 36 yet.

22 Q. Oh.

23 A. There we go. White extra large Midwest.

24 Q. There you go.

25 A. These two products -- and this is in my expert report.

1 These two products comprise about 63 percent of Rose
2 Acre's sales. These are important products, okay? And this
3 is just a very simple way to see what my model predicts about
4 the but-for world and the actual world relative to actual
5 transactions data. So if you go back to 35 now, if you don't
6 mind, what -- as I say these, and then you want to read it in
7 the record, but I'm just going to say this trend right here is
8 the trend that I predict based on my but-for analysis. I
9 predict, but for the conspiracy, prices would have followed
10 this pattern. Okay. So I've got you zeroed in on that. The
11 blue lines up to right here are actually the actual -- actual
12 prices, the actual price before the alleged conspiracy for
13 this particular type of shell egg. The red lines are my
14 but-for prices. So notice between 2003 and 2005, prices
15 spiked way up. I hope you can see that. Prices spiked way
16 up. But my model indicates that those spikes have nothing to
17 do with the alleged conspiracy. They're due to other changes
18 that I've controlled for, okay? And, in fact, that's true
19 until we get to about right here where we begin seeing a
20 departure from the actual prices, that's the blue ones on the
21 top, and my but-for prices.

22 So contrary to Dr. Walker's approach, the prices
23 that I predict based on my econometric analysis closely follow
24 the trends that you observe in the industry. And the actual
25 prices are actually elevated relative to those but-for prices.

1 This is the scientific way for examining whether or not a
2 conspiracy impacted prices, not just plotting raw data
3 adjusted by an arbitrary price index.

4 Q. Did you do the kind of analysis reflected in, let's say,
5 Slide 35, with respect to each Plaintiff and each egg type
6 that it bought from Rose Acre and the other alleged
7 co-conspirators that were identified in an earlier chart?

8 A. I've got but-for prices similar to the ones I showed
9 before with the but-for, absolutely.

10 Q. All right.

11 A. And I just picked these because these are -- these are,
12 you know, big, big groups of products, from Rose
13 Acre's standpoint.

14 Q. Is your analysis with respect to Slide 36 the same --
15 withdrawn.

16 Is your explanation with regard to Slide 36 the same
17 as Slide 35?

18 A. It is.

19 Q. All right. Finally, Professor Baye, are you confident in
20 the results you reached and the opinions that you have
21 expressed to this jury today?

22 A. I am.

23 Q. Very well.

24 MR. BLECHMAN: Your Honor, we pass the witness and
25 on a break we'd like to just put in the record the

1 demonstratives the witness has used. We're not offering them
2 into evidence.

3 THE COURT: Very well. We will -- thank you very
4 much.

5 We will take the lunch break now for, let's see,
6 it's 1 o'clock. How about if we resume at 2:15, folks, okay?
7 That will take into account for having you don and doff any
8 raincoats or boots or whatever. We'll get back here at 2:15
9 ready to resume for the rest of the afternoon. Again, same
10 rules apply that you know so well. See you in a bit. Enjoy
11 the lunchtime.

12 THE DEPUTY CLERK: All rise.

13 (Jury out.)

14 THE COURT: Okay. You enjoy lunch too.

15 MR. BLECHMAN: Thank you, Your Honor.

16 (Luncheon recess taken.)

17 (After the luncheon recess:)

18 (Witness resumes the stand.)

19 THE DEPUTY CLERK: All rise.

20 THE COURT: Okay, everybody, please take your seats.
21 Are we ready to see if the folks are ready to rejoin us?

22 MR. BLECHMAN: Yes, just two points. One is I just
23 wanted to put into the record a copy of the demonstrative
24 slides.

25 THE COURT: I just got a copy of them here.

1 MR. BLECHMAN: Yes, Your Honor.

2 And the second one is that I realized after, over
3 the lunch break, there's like one or two questions that I
4 forgot to ask.

5 THE COURT: Which?

6 MR. BLECHMAN: I'm going to say two, I mean,
7 genuinely, and if I might, with the Court's indulgence, I've
8 advised counsel, just ask those one or two questions.

9 THE COURT: I assume there's no problem with that.

10 MR. LEVINE: No, although we're a little bit -- we
11 don't understand what it means to give a demonstrative on the
12 record. I mean, given to the Court, obviously no problem, but
13 any -- demonstratives are not part of the, quote/unquote,
14 record. They're just an aid to the witness.

15 MR. BLECHMAN: It's not -- there's no suggestion
16 here.

17 THE COURT: They're not offering it to be admitted.

18 MR. BLECHMAN: Correct. Correct.

19 MR. LEVINE: Right.

20 THE COURT: Okay. No problem, yes, bring them back.

21 MR. BLECHMAN: Thank you, Your Honor.

22 THE COURT: You guys are very optimistic. You're
23 standing and you have no idea whether the troops are going to
24 be ready to rejoin us.

25 I just told an entire class of third-year students

1 that they can come in and watch this when they were done with
2 their discussion with Judge Baylson. So if you see some eager
3 faces troop in the back, that's who they are. Either that or
4 they're just saying, yeah, not interested.

5 THE WITNESS: Didn't advertise me, I hope.

6 THE COURT: No, no. I was very careful not to do
7 that. You never know when somebody's an econ major.

8 THE DEPUTY CLERK: All rise.

9 (Jury in.)

10 THE COURT: All right, everybody can take their
11 seats. We are ready to resume.

12 And, Mr. Blechman, I understand you had a couple of
13 questions more.

14 MR. BLECHMAN: Thank you, Your Honor.

15 BY MR. BLECHMAN:

16 Q. I realized there were one or two things I forgot to ask.
17 Professor Baye, if we could please pull up Slide 28.

18 MR. BLECHMAN: Is that up?

19 THE JURY: Yes.

20 BY MR. BLECHMAN:

21 Q. Under Giant Eagle -- this is -- just to set the stage,
22 this is a summary of Plaintiffs' purchases from
23 co-conspirators, including Rose Acre.

24 Do you have that, Professor Baye? Slide 28?

25 A. Yes.

1 Q. Okay. Under the column for Giant Eagle, first -- the
2 first line there's a reference to ConAgra.

3 Do you see that?

4 A. Yeah, I do.

5 Q. Do you have an understanding of why ConAgra is listed
6 there?

7 A. Not really, other than it could be an assignment issue is
8 what I would -- what I would guess. ConAgra is not a
9 co-conspirator in this matter, but, as I recall, there's some
10 assignments.

11 Q. Very well.

12 MR. BLECHMAN: Thank you, sir.

13 Thank you, Your Honor.

14 THE COURT: Okay, now your direct is completed,
15 Mr. Blechman?

16 MR. BLECHMAN: Yes, Your Honor.

17 THE COURT: Does anybody wish to cross-examine?

18 MR. LEVINE: Yes, Your Honor.

19 THE COURT: Go ahead.

20 CROSS-EXAMINATION

21 BY MR. LEVINE:

22 Q. Good afternoon, Dr. Baye.

23 A. Hi. How are you?

24 Q. I'm fine. My name is Jay Levine. I represent Rose Acre
25 Farms. I'm going to ask you a few questions in this matter.

1 I believe you testified earlier in response to your
2 counsel's questions that you were first engaged in this -- on
3 this project in around 2010?

4 A. Approximately.

5 Q. And from that time until now, how many hours have you
6 spent working on this project?

7 A. Many hours. Hundreds of hours.

8 Q. Okay. I believe at the time of your deposition, you had
9 testified you had spent about 600 hours at that time on doing
10 your report.

11 Do you remember that?

12 A. That wouldn't surprise me.

13 Q. And how many more hours have you spent since your
14 deposition on this project?

15 A. Okay, let me think. So my -- my report would have been
16 prepared probably in 2014-ish, because it was filed in 2015.
17 The deposition would have covered all that. And my
18 recollection is there were two supplemental reports that I
19 filed in response to some legal matters that I was asked to
20 address. Those didn't take a whole lot of time. I can't
21 remember exactly how much time I spent on them, but it
22 wasn't -- it wasn't a lot of time on those.

23 Q. Okay, so in total, do you think you spent about 1,000
24 hours?

25 A. I think that would be high. It's probably closer --

1 probably closer to 6-, maybe 650, 7-, but it's a guess.

2 Q. Okay. And has your rate stayed the same, \$750 an hour
3 throughout this time period?

4 A. No, it hasn't.

5 Q. And what is your rate today?

6 A. \$1,200 an hour.

7 Q. Okay. And is that what you're billing NERA for your
8 time?

9 A. Not on this matter.

10 Q. Okay. And what are you billing on this matter?

11 A. \$750 an hour.

12 Q. So that has stayed the same?

13 A. That's right.

14 Q. And you have people at NERA working for you on this
15 project?

16 A. That's correct.

17 Q. And do you have an estimate of how much time they've
18 spent on this project?

19 A. I do not.

20 Q. Okay. And NERA bills the Plaintiffs directly, correct?

21 A. That's correct.

22 Q. And do you get any percentage of what NERA bills to the
23 Plaintiffs?

24 A. I get 10 percent of the billings from staff.

25 Q. Okay. And do you know what the average hourly rate for

1 the staff was?

2 A. I do not.

3 Q. Okay. Do you know how much money you've made on this
4 project?

5 A. I do not.

6 Q. Because you haven't looked?

7 A. Because I haven't -- I mean, it's been over ten years.

8 Over ten years I've probably made -- if you divide, you know,
9 say 500 hours divided by ten years, that's -- yeah, I'm not
10 real good at doing arithmetic in front of --

11 Q. No problem. Well, I'll move on.

12 Now, I just want to be clear what you are and were
13 not giving an opinion on. You were not giving an opinion that
14 Rose Acre is actually liable in this matter, correct?

15 A. Yeah, I've made no determination that anyone violated the
16 law in any manner.

17 Q. And you've also made no determination that, in fact, a
18 conspiracy, a violation of the antitrust laws actually took
19 place, correct?

20 A. I have not offered an opinion on that, no.

21 Q. Now -- and you've -- and you've concluded that no --
22 no -- you have not concluded that any given producer is an
23 alleged co-conspirator in this case, correct?

24 A. Was there a double-negative in that?

25 Q. I didn't mean there to be.

1 A. If I heard it --

2 Q. Let me ask it again. You have not concluded, you have
3 not concluded or you're not offering an opinion that any given
4 producer is actually an alleged co-conspirator in this case,
5 correct?

6 A. Yeah, I'm not -- I'm not a fact witness. I'm not privy
7 to who might have signed what documents, who might have been
8 present in what meetings. I, you know, evaluated the record,
9 and saw, you know, saw records -- saw documentary -- I'll use
10 the term "evidence" with a small E, as an economist --

11 Q. Um-hum.

12 A. -- of individuals being at meetings and so forth, but I'm
13 not here to testify on people's presence at meetings or
14 anything like that. And therefore, I've got no idea, you
15 know, who is -- is responsible other than, you know, the
16 allegations in this case and the role that the UEP played as a
17 trade association.

18 Q. And you testified towards the end of your examination
19 about USEM exports, and I just want to sort of be clear. That
20 you've also called USEM exports short-term measures, correct?

21 A. That's correct.

22 Q. And that -- I think you've testified before that any
23 effect it would have had would have been very short-lived
24 about a month between, maybe, when they were announced and
25 when they were -- actually took place, correct?

1 A. Yeah, that's -- I mean, that's exactly what I've
2 estimated there is, that month, the price impact during that
3 month.

4 Q. Right.

5 A. And I think there was only a handful of those, yeah,
6 that's correct.

7 Q. Right. And that, in other words, the price would not
8 have been sustained any longer than that month was your
9 testimony, I believe?

10 A. Based on the ones that I was able to collect data and
11 actually examine the effect, that's correct.

12 Q. Okay. Now, you've testified that there were
13 communications and the like going back into the 1990s,
14 correct?

15 A. That's correct.

16 Q. Okay. Now, so -- and you are aware that there's an
17 allegation that the conspiracy started by at least May 15,
18 2000, correct?

19 A. I've seen a number of allegations and I've seen a number
20 of documents related to when communications began and so
21 forth.

22 Q. Okay. Well, are you aware that your counsel has
23 represented to the Court that the alleged conspiracy happened
24 by at least May 15, 2000?

25 A. Again, I haven't -- that's not implausible to me, but

1 again, it's a question of what, you know, of what you observe
2 in terms of communications. And I mean, I'm not a lawyer, I
3 don't know what's -- you know, from my perspective as an
4 economist at the FTC, when people in a trade association are
5 communicating about prices and output reductions and so forth,
6 regardless of whether they reach any kind of agreement in
7 violation of an antitrust law, as an economist, that raises
8 concerns. And therefore, I look at this from a standpoint of
9 an economist, not a question of when legal violation of the
10 law might have taken place. All I'm doing is examining the
11 record to see if it's consistent with coordinated activity,
12 and then to examine the impact of that. And that's all I've
13 done.

14 Q. Okay. And your analysis is data-driven, correct?

15 A. It's -- well, it's data-driven but it's also
16 record-driven as well in terms of, you know, tying the data
17 analysis to events in the record with respect to when certain
18 restrictions were imposed, the communications regarding what
19 the intent of those restrictions were, the -- the evidence
20 that the events are driven by, you know, certain motives on
21 the part of the trade association. Those types of things.

22 Q. Okay, well, let me ask it a little bit more specifically.
23 You testified at length about a flock model, correct?

24 A. I testified about a flock model, right.

25 Q. And you also testified at length about an egg production

1 model, correct?

2 A. I did.

3 Q. Now, you designed that analysis to test the effects of
4 the Certified Program, correct?

5 A. Not entirely.

6 Q. Well, you designed that analysis to test the effects of
7 whether there was a reduction in flock size or egg production
8 post August 2002, correct?

9 A. That's correct.

10 Q. Okay. And that's because the first stage of the -- of
11 the phase-in of the Certified Program would have taken effect
12 at August of 2002, correct?

13 A. Based on my recollection and my review of the data,
14 that's the first thing I saw in the record that, you know,
15 short of communications and what I call -- what I think of as
16 cheerleading, where the industry is attempting to figure out a
17 way to raise prices.

18 Q. You didn't start your analysis in the 1990s to determine
19 what effect any of the conduct in the 1990s had?

20 A. That's not correct.

21 Q. Okay. When -- when did you start your analysis in your
22 flock model? When did you design the model to test whether
23 there was an effect with respect to any conduct? What date?
24 What was the start of your --

25 A. So you're talking about the econometric analysis?

1 Q. Yes.

2 A. Based on my review of the record, the first date at which
3 the alleged conspiracy would have had a sustainable impact on
4 output began with the 2002 period that I discussed at length
5 this morning. That does not mean --

6 Q. I'm sorry, go ahead.

7 A. That does not mean that I did not observe in the record
8 short-term measures that, based on my experience as an
9 economist, would have likely impacted price. As I indicated
10 this morning, I wasn't -- I'm not in a position to utilize the
11 econometric methods --

12 Q. Okay.

13 A. -- to quantify those effects. And rather than speculate
14 about what those effects are, I chose to ignore those
15 potential effects and subsume them as part of the error
16 structure in my econometric model. And in so doing, I
17 ultimately -- and ignoring, for purposes of impact, the impact
18 of those short-term measures that preceded the 2002
19 implementation in my analysis.

20 Q. Okay. And just for edification, the Restriction 1 in
21 your model starts to determine effect as of what date, August
22 2002, correct?

23 A. That sounds right. I'd have to -- it's when the first
24 cage space restrictions would have been in effect.

25 Q. And that cage space was part of the UEP Certified

1 Program, correct?

2 A. Well, the Animal Care Certified Program as it was being
3 advertised at that time. Of course it changed in 2005 --

4 Q. Dr. Baye, just answer my question, we'll get out of here
5 a lot --

6 MR. BLECHMAN: Excuse me. If the witness would be
7 allowed to answer the question --

8 THE COURT: Well, are you done with your answer,
9 Professor Baye?

10 THE WITNESS: I was not quite, but I --

11 THE COURT: You said, That sounds right. It's when
12 the first cage space restrictions would have been in effect.
13 And the next part was, The Animal Care Program, as it was
14 being advertised in 2005.

15 THE WITNESS: Yes, Your Honor. He was referring to
16 it as the UEP Certified Program, and I was just pointing out
17 that at that point in time it was actually called the Animal
18 Care Certified Program, which, in my mind as an economist, is
19 materially different.

20 BY MR. LEVINE:

21 Q. Whatever it was called, that was the date in which you
22 started to test whether there was an effect on flock size or
23 egg production, correct?

24 A. With an econometric model, that's correct.

25 Q. Okay. Thank you.

1 Now, you've not seen any evidence that a customer
2 who wanted non-certified eggs was not able to get them; is
3 that correct?

4 A. I have not seen -- there's a double negative in there.

5 Q. Was there a double negative in there.

6 A. I'm just --

7 Q. You have not seen any evidence that a customer who
8 desired non-certified eggs was unable to get them; isn't that
9 correct?

10 A. Well, after the market --

11 Q. Is that correct?

12 MR. BLECHMAN: Whoa, whoa, whoa.

13 BY MR. LEVINE:

14 Q. Yes or no?

15 MR. BLECHMAN: Your Honor, if the witness could be
16 allowed to finish.

17 THE COURT: Well, try the question again.

18 MR. LEVINE: Okay.

19 THE COURT: I think there was a focus on the double
20 negative issue.

21 MR. LEVINE: Okay.

22 THE COURT: So start again.

23 BY MR. LEVINE:

24 Q. It's simply a yes-or-no question. Have you seen any
25 evidence that there was a customer who wanted non-certified

1 eggs but was not able to get them?

2 A. I can't recall any.

3 Q. Thank you.

4 MR. LEVINE: We have a demonstrative.

5 Can I publish to the jury, Your Honor?

6 THE COURT: You can -- you can show it.

7 BY MR. LEVINE:

8 Q. Let me see if I can turn this.

9 Okay, Dr. Baye, you also talked about your various
10 results in your main specifications, correct?

11 A. That's correct.

12 Q. Okay. And all we've done here is charted your
13 Restrictions 1, 2, 3, 4 and 5, that relate to the periods in
14 which you had various variables that related to the cage space
15 restrictions and the phase-in in the Certified Program,
16 correct?

17 A. That's correct. I mean, it looks correct.

18 Q. And I think you've already testified that from your egg
19 production model, in Periods 1 and 2, you did not find any
20 statistically significant effect, correct?

21 A. Not at the 99 percent level, that's correct.

22 Q. But you did in Periods 3, 4 and 5, correct?

23 A. That's correct. And also in other models.

24 Q. Okay. I'm sticking now with your main specification.

25 Now, you did no analysis of what cage space any individual

1 producer actually provided, correct?

2 A. That's correct. I looked at the aggregate effect on the
3 market.

4 Q. Right. But you didn't look at what any individual
5 producer, what cage density standards they were using either
6 prior to the Certified Program or post the Certified Program,
7 correct?

8 A. That's correct, because it wouldn't have been relevant.

9 Q. It didn't matter to you?

10 A. It wouldn't matter for answering the antitrust question
11 in this case.

12 Q. Right. It was -- according to you, all you cared about
13 is the aggregate, not about what any given producer did?

14 A. Correct. Because this is an allegation about a trade
15 association conspiring with members of the trade association
16 to restrict output. So the question is not whether any
17 individual might have expanded output or cheated or whatever
18 on that -- that's not evidence that's relevant for determining
19 the marketwide impact.

20 Q. And you have no idea whether the but-for flock size of
21 any given producer would have been higher or lower because you
22 did no such analysis, correct?

23 A. All I know is the total -- you're correct. All I know is
24 the total flock size is lower.

25 Q. And you don't know whether, and you certainly don't

1 report whether anyone who is part of the alleged conspiracy
2 was required by any other customers to conduct audits in terms
3 of what cage space standards they were employing, correct?

4 A. Just no -- no.

5 Q. Okay. And based on your econometric analysis, the cage
6 space restrictions by themselves did not have an effect on egg
7 production, correct?

8 A. Yeah, I don't know that I would agree with that.

9 Q. Okay.

10 MR. LEVINE: Your Honor, may I approach?

11 THE COURT: Yes, you may.

12 BY MR. LEVINE:

13 Q. Dr. Baye, do you remember having your deposition taken?

14 A. I remember you deposing me, yes, sir.

15 Q. I'm going to take that as a yes.

16 A. Yes. Yes.

17 Q. And do you remember that -- I believe it was sometime in
18 May of 2015?

19 A. I'll take your word for that one.

20 Q. It was just a couple of weeks before my son's wedding, so
21 it was memorable.

22 And if you turn to -- and did you give truthful
23 testimony on that day?

24 A. To the best of my knowledge, I attempted to.

25 Q. Okay. Now, if you turn to page 289, I believe it's in

1 Volume 1 of your deposition. Let me know when you're there.

2 A. Okay.

3 Q. And I asked you at that time: And is it your opinion
4 that cage space restrictions by themselves have no effect
5 because of the statistically -- I think it should be
6 insignificant coefficients in Restrictions 1 and 2?

7 Do you see that?

8 A. I do see that.

9 Q. And you answered: It's consistent with them having no
10 effect. Correct?

11 A. That's correct.

12 Q. And you went and I asked you -- you were very careful
13 there. I asked: Is it your opinion?

14 And you said: It's consistent with.

15 Are you venturing an opinion as to whether cage
16 space restrictions by themselves with no other restrictions
17 included?

18 And you said it is.

19 And I asked you to let me finish the question,
20 sorry, and then have an effect on flock size or egg
21 production.

22 And you answered: Are you asking in the guidelines
23 or are you just asking generally? If you foresaw -- if you
24 take all the existing chickens and reduce the number by
25 creating bigger and bigger cages, if you do that, clearly

1 you're going to have fewer -- fewer hens, you're going to have
2 fewer eggs. That's not what I'm -- that's not what I'm
3 referring to when I make the statement. When I'm making the
4 statement, I'm saying if the UEP then imposed cage size
5 restrictions by themselves without any of the other measures
6 that they adopted, um-hum, it's my opinion, that it would have
7 no effect on output.

8 Did I read that correctly?

9 A. That's correct.

10 Q. Okay. Thank you. Now --

11 A. Is that the --

12 Q. You mentioned -- you mentioned that you had -- you
13 mentioned Don Bell a couple of times, and the like.

14 Are you aware of what the industry average was in
15 terms of cage density prior to the Certified Program?

16 A. I don't remember sitting here, no.

17 Q. Do you remember hearing the standards like 48 inches?

18 A. I remember reading a lot of numbers about a lot of
19 different specifications. I don't remember.

20 Q. You read all the trial transcripts, right?

21 A. I reviewed the trial transcripts, that's correct.

22 Q. Okay. And do you remember testimony about 48 inches
23 being the prevailing standard prior to the Certified Program?

24 A. I don't recall that.

25 Q. Do you recall the United Voices where Don Bell said that

1 the industry was even lower than 48 inches?

2 A. I don't recall that right now. I don't remember it
3 anyway.

4 Q. Now -- and the largest jump in terms of cage space would
5 have been both percentage-wise in terms of inches, from 48, if
6 that was the prevailing standard, to the first standard which
7 is 56, correct? Every subsequent jump is much smaller,
8 correct?

9 A. That -- yeah, I don't know -- I don't know. I know that
10 the actual restrictions get progressively more stringent.

11 Q. Well --

12 A. The first restriction is -- yeah, I don't know that I
13 agree with that.

14 Q. Well, if, in fact, the prevailing standard was 48 inches,
15 then, in fact, the 8-inch jump from before the Certified
16 Program to the first phase would have been the biggest jump in
17 all of the phases, correct?

18 A. You mean starting from an initial status quo that wasn't
19 imposed by the UEP to that one?

20 Q. Yes. Yes.

21 A. If your hypothetical is correct, then that would be
22 correct.

23 Q. Okay. Well, the jury has heard what the jury has heard.
24 Okay. So -- and you understand that the cage space
25 restrictions started in August of 2002, correct? That was the

1 first implementation of the cage space restriction?

2 A. Restriction. Restriction. What is?

3 Q. That was the first phase, in which there was a mandated
4 space per hen pursuant to this guideline.

5 A. And what I heard -- you're getting a little bit confused
6 here because I think you're talking about a phase before
7 Restriction Period 1, and if I heard you correctly, you're
8 asserting that going from no UEP Program to Restriction 1 had
9 the biggest impact on cage size.

10 Q. Dr. Baye, I'm asking a different question.

11 A. Then I don't -- I'm confused.

12 THE COURT: Start again then.

13 BY MR. LEVINE:

14 Q. In August of 2002, that was the first time that there was
15 a cage space mandate under the guidelines, correct?

16 A. Okay. Yes.

17 Q. Okay. So in 2002, the UEP Guidelines start mandating
18 what cage density producers who were on the Certified Program
19 must use, correct?

20 A. That's correct, on the Animal Care Certified Program.

21 Q. Thank you.

22 Now, isn't it true you've also testified that the
23 100% rule by itself would also, in conjunction with the cage
24 space restrictions, not have an effect on egg production?

25 A. Yeah, I think that's a mischaracterization of my opinion

1 on that.

2 Q. Okay, Dr. Baye, can you turn to page 114 of your
3 deposition? And if you can go to the very top, do you see I
4 asked you: So only Restriction 1 analyzes the effect of the
5 100% rule in cage space restrictions apart from any other
6 restrictions alleged in this case?

7 And you answered: That is the restriction that
8 allows you to identify the effect of the 100% rule.

9 Did I read that correctly?

10 A. Well, I think -- I think if you go back --

11 Q. Did I read that correctly, Dr. Baye?

12 A. You read that correctly.

13 Q. Thank you.

14 MR. BLECHMAN: Your Honor, if the witness could be
15 allowed to answer the questions.

16 THE COURT: Well, the question was: Was it read
17 correctly?

18 MR. BLECHMAN: Immediately before that, he
19 started --

20 THE COURT: I know, I understand, but then you get
21 to go back and redirect if you want to clarify.

22 MR. BLECHMAN: That's fine.

23 BY MR. LEVINE:

24 Q. And, in fact, it was your testimony that the 100% rule
25 would be unlikely to have reduced production, correct?

1 A. Yes or no?

2 Q. It's a yes or no.

3 A. Repeat the question, please.

4 Q. Right. It is your testimony or your prior testimony that
5 the 100% rule by itself would be unlikely to have reduced
6 production?

7 A. I can't answer that question yes or no.

8 Q. Can I ask you to turn to page 293 of your deposition?

9 A. I'm sorry, 293?

10 Q. Yes, please.

11 And I'll direct you to line 4 of your deposition.

12 And I asked you: And you don't separately analyze any of them
13 putting aside your backfilling ban specification?

14 And you answered: Well, except that, you know, like
15 I said, the 100% rule is already in effect for Restrictions 1
16 and 2. So I've identified that the 100% rule by itself would
17 be unlikely to have reduced the production. So that means
18 that it's -- it's the other stuff that would have led to
19 reduce production.

20 Did I read that correctly?

21 A. You read that correctly.

22 Q. Thank you.

23 Now, you talked about monthly reporting and
24 compliance with your counsel, correct? You mentioned that the
25 UEP required monthly compliance reports to be submitted by the

1 various producers who were on the Certified Program, correct?

2 A. That's correct.

3 Q. And do you remember when those -- when that requirement
4 went into effect?

5 A. I don't remember right at this point. I know that there
6 were a lot of -- there were a lot of meetings and so forth,
7 and so I don't know exactly, sitting here.

8 Q. Okay.

9 A. I don't remember.

10 Q. Are you aware that in the 2003 UEP Guidelines -- excuse
11 me -- they required producers who were certified to submit
12 monthly compliance reports?

13 A. I remember those -- I remember the compliance reports
14 evolving. I don't remember -- it's been a while since I
15 reviewed all the underlying records, but I know that it
16 evolved throughout that period.

17 Q. Okay. If -- and here I'll just ask you to turn to
18 page -- paragraph 124 of your report. And I'm just going to
19 focus you on what I believe is the third sentence of that
20 paragraph. The sentence starts towards the end on the right
21 side, this section, referring to the 2003 edition of the
22 guidelines. Made explicit that the rule that every certified
23 company must implement the guidelines on 100 percent of the
24 company's production facility, the 100% rule, and submit a
25 monthly compliance report to the UEP.

1 Do you see that?

2 A. I see that.

3 Q. Does that refresh your recollection that in 2003, UEP was
4 requiring producers to submit a monthly compliance report?

5 A. I do see that.

6 Q. Thank you.

7 So -- now, I believe you've already acknowledged
8 that there's nothing in the guidelines themselves. Just
9 talking about the guidelines, that prohibits expansion,
10 correct?

11 A. That's correct.

12 Q. So in 2002, we have the cage space requirements. In
13 2003, we have the 100% rule, we have the monthly compliance
14 reports, and you also talked, I believe, about audits with
15 Mr. Blechman; is that correct?

16 A. That's correct.

17 Q. And the UEP Certified Program, in fact, required a
18 producer to be audited, correct, yearly?

19 A. Annual audit, that's correct.

20 Q. Annual audit. And do you know that, in fact, those
21 audits, that requirement was introduced in the 2003
22 guidelines?

23 A. I -- again, I don't remember the timing of all these
24 details, but, if you say it is.

25 Q. Well, if -- I believe these are already in evidence.

1 MR. LEVINE: If -- if you can bring up D-175.

2 BY MR. LEVINE:

3 Q. You can look on your -- on your screen, and if you could
4 turn to page 14, 175-14. And I believe these are actually the
5 2002 guidelines.

6 MR. LEVINE: And if you can blow up the audit
7 section.

8 BY MR. LEVINE:

9 Q. And do you see there that there is an audit requirement
10 in the 2002 guidelines?

11 A. I see that.

12 Q. Okay. Thank you.

13 So if we can go back to the demonstrative. So,
14 again, so now in 2002, the Certified Program starts -- has the
15 cage space requirements, has the audits, and in 2003, we have
16 the 100% rule and we have the monthly reporting requirement.
17 And you talked about backfilling a little bit, correct?

18 A. That's correct.

19 Q. And backfilling started, do you remember when?

20 A. 2005-ish, something like that.

21 Q. Would you take my representation it was February 1st,
22 2005?

23 A. I'll take your representation.

24 Q. And I believe that's -- that is, in fact, when you did
25 your analysis for the backfilling ban specifications as well?

1 A. Sounds right.

2 Q. Okay. Thank you.

3 Now, the backfilling ban forbade producers from
4 replacing hens that were subject to mortality, correct?

5 A. That's my understanding.

6 Q. Okay. Now, I believe you've previously testified, you
7 don't know whether there are any extra costs associated with
8 backfilling, correct?

9 A. I don't specifically, no.

10 Q. And you've never identified whether any alleged
11 co-conspirator actually engaged in backfilling prior to
12 February 2005? In your report, you don't report any producer
13 actually engaged in backfilling prior to February 2005,
14 correct?

15 A. I -- I do report that the United Voices is talking about
16 that being a problem, but it doesn't identify the specific
17 individuals that might have done that.

18 Q. And you yourself don't know -- did no analysis to
19 identify whether any given producer was actually backfilling
20 prior to February 2005, correct?

21 A. That's correct.

22 Q. And you don't know whether non-certified producers
23 backfilled as well, correct?

24 A. I -- basically -- I mean, did or didn't?

25 Q. Yes. You don't know whether any non-certified producer

1 backfilled, correct?

2 A. Any specific one?

3 Q. Yes.

4 A. Yes, that's correct.

5 Q. And you don't know whether any specific -- any specific
6 certified producer backfilled prior to February 2005, correct?

7 A. That's correct.

8 Q. And -- and for those egg producers who might have
9 backfilled prior to February 2005, you don't know how many
10 hens they may have backfilled, correct?

11 A. Don't know. All I observed is the effect on the entire
12 market.

13 Q. I understand. But you don't know how many hens a given
14 producer may have backfilled prior to February of 2005?

15 A. That's correct. An implication of what I've already
16 answered.

17 Q. And for -- and for those egg producers that did backfill
18 prior to February 2005, if there were, you don't know how
19 many -- how many hens they backfilled or how many eggs were
20 produced by those backfilled hens in any year, correct?

21 A. At the individual level or the --

22 Q. Yes, at the individual level.

23 A. At the individual level, the answer to that question is
24 no.

25 Q. And you've seen testimony that some -- at least some

1 producers never backfilled, correct?

2 A. It wouldn't surprise me that that might be the case. I
3 don't have any specific information one way or the other that
4 I recall.

5 Q. And you don't know the reasons why producers may have --
6 may or may not have chosen to backfill prior to February 2005,
7 correct?

8 A. As an economist, I have a good understanding of why they
9 might have backfilled.

10 Q. Okay. Professor Baye, may I direct your attention to
11 page 101 of your deposition.

12 A. Okay.

13 Q. Line 5. You were asked: Prior to February 2005, do you
14 know why producers might have chosen to backfill?

15 And you answer: I don't know that they did or did
16 not backfill. It's not part of my assumption. So again, I
17 don't have any reason to know why -- or why they may have or
18 have not.

19 Is that correct, did I read that correctly?

20 A. That's exactly what I said and that's why I --

21 Q. Thank you.

22 MR. BLECHMAN: Wait. Wait. Your Honor.

23 THE COURT: Finish your answer.

24 MR. BLECHMAN: Thank you.

25 THE WITNESS: I'm finished.

1 BY MR. LEVINE:

2 Q. Are you familiar with --

3 THE COURT: Yes, you can finish your answer.

4 THE WITNESS: Yes. The record -- the United Voices
5 indicates people are doing that because prices are high,
6 because the guidelines are working, and people are eroding the
7 -- eroding the price gains by backfilling. That's what the
8 record says.

9 As an economist, that's exactly what economic theory
10 predicts is a problem with the cartel. Prices rise, people
11 cheat, people expand, people engage in activities that are
12 designed to capitalize unilaterally on those higher prices and
13 that's when we observe additional restrictions being imposed
14 by the UEP, as I see it as an economist, to restrict that
15 practice.

16 BY MR. LEVINE:

17 Q. Dr. Baye, you did a lot of econometric work and the like,
18 and a lot of investigation, but you did not investigate how
19 prevalent the practice of backfilling was or actually how many
20 eggs were produced by any backfilled hens prior to
21 February 2005; is that correct?

22 A. Yes. That's absolutely correct.

23 Q. And are you aware of a person by the name of Joy Mench?

24 A. It doesn't ring a bell.

25 Q. Have you been reading the daily transcripts?

1 A. I have -- I'm not good with names and dates.

2 Q. Have you -- did you read the trial transcript of
3 Dr. Armstrong?

4 A. Yes.

5 Q. And did you -- did you read who he identified as being
6 part of the Scientific Advisory Committee?

7 A. I -- I read his -- I read his transcript.

8 Q. Okay, and are you aware that Dr. Mench was on both the
9 UEP Scientific Advisory Committee and on the FMI Advisory
10 Council?

11 A. Again, I don't pay attention to names and -- and --

12 Q. And, Dr. Baye, do you also recall that Dr. Mench was
13 against the practice of backfilling?

14 A. Not him specifically, no.

15 Q. Now, you talked about sort of the data you used in order
16 to conduct your econometric analysis, correct? I believe you
17 said it came from the USDA?

18 A. Well, the flock size data --

19 Q. Yes.

20 A. -- and the egg production data came from the USDA, that's
21 correct.

22 Q. Right. I'm not talking about the elasticity.

23 A. Or the Urner Barry prices, for example, or the
24 transactions data that I utilized.

25 Q. So -- and the USDA production data -- I'm going to stick

1 with your production model -- that includes pretty much all of
2 the producers in the country, correct?

3 A. It includes the -- well -- it includes the production of
4 all eggs for human consumption. So it wouldn't include, for
5 example, vaccines that are made from fertilized eggs, that
6 type of thing, but it would be all eggs for human consumption.

7 Q. Okay. So that would include commodity shell eggs, which
8 is what we're talking about predominantly here. It would also
9 include cage-free eggs?

10 A. That's correct, specialty eggs.

11 Q. And organic eggs?

12 A. That's correct.

13 Q. And Omega-3 eggs?

14 A. That's correct.

15 Q. And eggs that were destined for export, whether USEM or
16 otherwise, eggs that were destined for export, they would be
17 in your production model, correct?

18 A. That's correct.

19 Q. Okay. As well as eggs that go into egg products,
20 correct?

21 A. That's correct.

22 Q. And, again, in terms of your econometric but-for analysis
23 on egg production, I just -- you did it on the USDA data. You
24 did not confine -- you never conducted analysis just for the
25 20 alleged co-conspirators in this case, as to whether their

1 egg production changed as a result of these -- of the
2 Certified Program?

3 A. Because -- no, because it's not relevant for answering
4 the antitrust question at issue here.

5 Q. Okay. Now -- now, you understand that there are only 20
6 alleged co-conspirators in this case, correct?

7 A. I don't -- I don't understand that. I don't
8 understand -- I -- I think I told you this in the deposition,
9 I don't know the difference between a Defendant, a
10 co-conspirator. That's just all legal stuff.

11 From my perspective, members of the UEP participated
12 in -- so --

13 Q. I understand. And your counsel told you to consider and
14 to call these co-conspirators, these companies?

15 A. That's correct.

16 Q. And you don't have an understanding as to why your
17 counsel chose these 20?

18 A. I was not told.

19 Q. But do these look like the 20 that you were told?

20 A. I mean, I recognize some of the characters here.

21 Q. Well, if you think I'm wrong, let me know.

22 A. No, no, I just, you know, I'm not good with names.

23 Q. Understood. Now, in your report, originally, you had
24 testified that the alleged conspiracy group had about

25 54.1 percent of the -- of the flocks in the U.S., but earlier,

1 you testified just for a more narrow group, these 20, and you
2 testified, I believe, that they had about 42.8 percent?

3 A. My recollection is I described the total certified
4 production that was controlled by the UEP Certified Program
5 and that was on the order of 85 percent, and then I put
6 together an exhibit that showed that these particular members
7 of the UEP together comprised on the order of 40, 42 percent,
8 whatever it was.

9 Q. For reasons that I'm not sure, we got a different number
10 than you, not materially, I think our number came to
11 40.3 percent, but whether it's 40 or 42 percent, that's the --
12 that's the market share, if you will, of these 20 companies,
13 at least in 2004, pursuant to Exhibit 7 of your report,
14 correct?

15 A. It's the share of -- I believe this is flock size; is
16 that correct --

17 Q. Flock size.

18 A. -- that you're looking at?

19 Q. Yes. Okay. Now -- and you -- I think you had just said
20 that you think that the UEP Certified producers represented
21 about 85 or so percent of the nation's flock size in 2004,
22 correct?

23 A. 2004, 2005. I know by 2008, it was like the entire
24 cage-free industry was -- was UEP Certified. About 95 percent
25 at that point.

1 Q. And just --

2 A. Times -- I'm bad with dates, but time does matter in
3 terms of when you're doing the shares.

4 Q. I understand. But let's just stick with what your
5 exhibit had and we had.

6 A. Okay.

7 Q. So if there was -- if -- let me get this out correct.

8 If UEP Certified producers had about 85 percent of
9 the nation's flock and the alleged co-conspirators had about
10 40 to 42 percent of the nation's flock, that means there are
11 about 40 or so percent of the nation's flock are held by
12 people who are certified but are not part of the alleged
13 co-conspiracy, correct? 85 minus 40 equals 45. Or 85 minus
14 42 -- using your numbers -- is about 43.

15 A. I wouldn't agree you're not part of the conspiracy.
16 Again, from my perspective, the conspiracy includes the Trade
17 Association and anyone that was a party to it. I don't know
18 from a legal -- from a legal perspective how you go about
19 characterizing which of those people are relevant for which
20 particular antitrust matter you go, and I'm -- I've been
21 around long enough to know that that's not something that an
22 economist has -- is helpful in understanding.

23 Q. Okay. Thank you. I actually just -- this was even a
24 more simple question. I just want to know if my math was
25 correct. If 85 percent of the nation's flock was held by

1 certified producers and this group of 20 represented about 40
2 to 42 percent of the nation's flock, that means there's about
3 40-plus percent of the nation's flock held by certified
4 producers who are not a member of this 20 co-conspirator group
5 that your counsel told you to make a chart about. Simple
6 math, right?

7 A. It's simple math. It's the characterization of -- you
8 seem to be implying that they somehow weren't involved in the
9 UEP and its certification program and all that kind of stuff.

10 Q. It's simple math. My question really was just simple
11 math.

12 A. Yeah, well, the math -- I mean, I can do math sometimes.

13 Q. I hope so. Okay. Now -- now, if you turn to
14 paragraph 68 of your report. And this is where you talk about
15 your Exhibit 7, correct?

16 A. Paragraph 68?

17 Q. Yes. On page 25 of your report. Your initial report.

18 A. Yes, yes, sir. And what was the question? I apologize.

19 Q. So -- well, here you're talking about your Exhibit 7,
20 correct?

21 A. Oh, Exhibit 7, yes.

22 Q. And you list, I believe, in Exhibit 7 something like
23 there are 186 producers in the country, correct?

24 A. Well, this is for the ones that my staff could identify.

25 Q. Right.

1 A. Yeah.

2 Q. At least 186 --

3 A. Yes.

4 Q. -- producers in the country?

5 And, in fact, their flock total represented about
6 98 percent, as far as you could tell, of the nation's flock
7 size, correct?

8 A. That's correct.

9 Q. Okay. So, again, this is sort of fairly -- fairly
10 simple. And I believe, again, if you can -- you represent
11 that about 177 producers at this time were UEP Certified,
12 correct?

13 A. That's what it says, yes.

14 Q. Do you have any reason to doubt your report?

15 A. You know, I wrote it a long time ago, so I believe what I
16 write, but it's a long time ago.

17 Q. Okay. And again, so 177 producers were certified, and
18 yet there are only 20 companies that are being alleged by the
19 Plaintiffs to be co-conspirators. Again, if my math is
20 correct, that leaves 157 certified companies were not part of
21 the alleged co-conspiracy group. Is my math correct?

22 A. Just give me one second, if you don't mind, to refer to
23 my exhibit.

24 Q. My question is really just a math question. I'm not
25 asking anything about the exhibit itself. Is 177 minus 20,

1 157? Dr. Baye?

2 A. I'm sorry?

3 Q. Is 177 minus 20, 157?

4 A. Sounds pretty close.

5 Q. Okay. Thank you. Now, do you understand -- do you
6 know -- do you understand the term "owned price elasticity"?

7 A. I'm sorry, repeat that.

8 Q. Do you understand what the term "owned price elasticity"
9 or "own price elasticity"?

10 A. I do.

11 Q. Okay, can you explain to the jury what that concept is?

12 A. Yeah, the owned price elasticity of demand is a measure
13 of how much the quantity demanded for a specific firm's
14 product changes with respect to a change in that firm's price.
15 That would be like if you want to know the price elasticity of
16 demand for a Honda, the owned price elasticity would be that.
17 You could also go market elasticity, which could be like for
18 cars, and it would be the same thing for cars.

19 Q. Right. But an owned price elasticity would be what is
20 the change in the quantity demanded if the price -- what is
21 the change in the quantity demanded of a Honda if you raise
22 the price of a Honda?

23 A. That's correct.

24 Q. That would be an owned price elasticity?

25 A. That's correct.

1 Q. Or even more specifically, what is the change in the
2 price of a Honda Accord as a result of a change in production
3 of a Honda Accord, that would be an owned price elasticity?

4 A. No, I don't agree with that. I think you said
5 production, change in production.

6 Q. That would be an inverse.

7 A. It would be an inverse.

8 Q. Let me ask you this.

9 A. Okay.

10 Q. You used bubble gum before, right?

11 A. I did.

12 Q. Okay. So an owned price elasticity would be, what would
13 be the change in the quantity demanded if you raised that
14 bubble gum by 1 percent?

15 A. It would be the percentage change, not quite right.

16 Q. Wouldn't that be the owned price elasticity?

17 A. If you said percentage change instead of change, that
18 would be correct.

19 Q. Thank you for the correction. It wasn't a trick
20 question.

21 A. I never know. I mean, you'll impeach me on that later,
22 probably, so --

23 Q. And when you were doing the -- with Mr. Blechman, as to
24 whether the Plaintiffs paid more than they otherwise would
25 have --

1 A. Um-hum.

2 Q. -- what you had done is, you had taken your -- the change
3 that your production model had estimated, the change in
4 production, and you applied the elasticities you had
5 determined from the Urner Barry and that gave you the price
6 change, if you will, of how much price increased for that
7 product, correct?

8 A. As a result of the conspiracy, alleged conspiracy,
9 correct.

10 Q. As a result of -- as what was determined by your
11 econometric model?

12 A. Yeah, that's correct. If you don't want to use
13 econometrics, you look at the record and you say what the
14 known price elasticity --

15 Q. Right. And your --

16 A. -- minus one and you're done.

17 Q. And your econometric model, your main specification was
18 geared towards five restrictions that matched the cage space
19 phase-in of the Certified Program, correct?

20 A. No, that's not correct. I also did the backfilling ban
21 specification as well.

22 Q. Okay.

23 A. And then I have nine other specifications that you seem
24 not to want to talk about.

25 Q. I'm asking on your --

1 A. No, I understand.

2 Q. All we talked about --

3 THE COURT: Okay, we're not having, like, a
4 conversation, gentlemen, okay?

5 BY MR. LEVINE:

6 Q. Let's stick with your main specification.

7 A. Yes.

8 MR. BLECHMAN: If Professor Baye could be allowed
9 just to answer the question.

10 BY MR. LEVINE:

11 Q. Dr. Baye, your main specification, again, your main
12 specification was designed to determine the effect phase by
13 phase matching the Certified Program phase-in of cage
14 restrictions, correct?

15 A. That's one of my -- what Specification 1 did, yes.

16 Q. And your backfilling ban specification was a before and
17 after look before the backfilling ban went into effect and
18 after the backfilling ban went into effect without chopping
19 the periods into -- into smaller periods, correct?

20 A. That's correct.

21 MR. LEVINE: At this time, I have nothing further.

22 THE COURT: Any other cross-examination?

23 MR. HARRIS: Nothing on behalf of USEM.

24 MS. SUMNER: Nothing for UEP.

25 THE COURT: Any redirect?

1 MR. BLECHMAN: Yes, Your Honor, thank you.

2 REDIRECT EXAMINATION

3 BY MR. BLECHMAN:

4 Q. Dr. Baye, good afternoon. Professor Baye -- sorry --
5 good afternoon.

6 A. Mike is easier for everybody.

7 Q. I'm going to stick with Professor Baye here. Thank you.
8 I'm going to ask you questions to follow-up on some of the
9 questions you were asked by Defense Counsel. I'm going to
10 move around to try to stick with the questions that you were
11 asked and at the same time try to balance these books here.

12 You were asked some questions, Professor Baye, about
13 whether the short-term measures had an effect prior to 2002.
14 Do you recall --

15 A. Yes.

16 Q. -- that question and answer?

17 If the short-term measures had an effect before
18 2002, would those be -- would those have been a sustained
19 impact?

20 A. No, they would not. That's why I didn't worry about
21 them.

22 Q. Help us better understand, if you would, sir. When you
23 say that's why you didn't worry about them, what is that --
24 what do you mean in the context of the model you prepared and
25 the results of that?

1 A. Right. So I'm trying to use academic methods to
2 scientifically examine whether the alleged conspiracy impacted
3 output. It's a tough job. It's a hard job. I would have --
4 in a perfect world, I would have been able to identify every
5 single element of the alleged conspiracy and identify
6 specifically what that is. But the world is more complicated
7 than that and as a -- as an economist doing research, you have
8 to make judgments. And in my judgment, attempting to account
9 for the higher prices that might have existed prior to 2002,
10 given the lack of data that I had and so forth, would have
11 required incredibly heroic assumptions on my part to make that
12 work.

13 So what I chose to do is use an econometric
14 methodology that allowed me to ignore any potential effects
15 while controlling for those with an error structure because
16 essentially anything I don't control for is being included in
17 the error term of my regression. It's another term.

18 And I want to therefore specify an econometric model
19 that's robust enough to capture those effects in a way that is
20 done in the literature, and that's what I did by allowing for
21 a trend variable that captures changes that I'm not accounting
22 for. Some of those changes could be animal welfare. I have
23 time-squared, that allows nonlinear effects, but it also
24 captures anything else that I'm not including in the model and
25 therefore absorbs it.

1 And as a matter of economics, there's two ways to
2 think about it. If you think those short-term measures were
3 continuous throughout the entire period, then they'll be
4 absorbed in my time chart. If you think those short-term
5 measures that were being referred to here only occurred before
6 2002, to the extent that they impact my results, they elevate
7 prices before the conspiracy, and therefore, reduce the
8 estimates that I'll have of impact, ultimately.

9 And there's a nice paper that came out on cartel
10 dating just a couple of years ago, after I was deposed, I
11 might add, that demonstrates formally that if you misspecify
12 the date in the model that I estimated, a model like the one I
13 estimated, you actually get conservative estimates of impact.

14 So I didn't know that at the time, I knew that if --
15 if prices were elevated before 2002, it's going to tend to
16 dampen the effect, but I didn't realize that was a more
17 general result than was understood in the literature. So is
18 that --

19 Q. In the context of the models that you prepared and then
20 ran and the results of those models, would you please explain
21 to the jury what you mean in the answer you just gave by the
22 phrase "conservative estimates of impact"?

23 A. Conservative estimates of impact means I'm understating
24 the impact of the alleged activity on output and therefore on
25 prices.

1 Q. You also used the phrase "absorbed in the time trend" in
2 explaining how your model picks up other activity in the
3 marketplace. With a focus on absorbed in time trend, would
4 you please explain to the jury both what that means and how
5 that works in the context of your model, sir?

6 A. Okay. Very good. So Mr. Levine alluded to a couple of
7 things that he was implicitly arguing I wasn't considering in
8 my model. He mentioned exports, for example. He mentioned
9 the early -- the early flock reduction strategies and all
10 those types of things. As I mentioned this morning, any
11 econometric model you build is necessarily going to be a
12 simplification of reality. There's no way you can include
13 every possible thing that could possibly impact egg
14 production, okay?

15 And what that means then is you want to use an
16 approach that is robust enough to account for all those other
17 things that, in principle, could or might or possibly impact
18 production, and a time trend does that and a time trend
19 squared does that, and what that allows for is variables other
20 than the explicit controls that I'm using to have differential
21 effects over time in egg production in a manner that captures
22 those effects.

23 And the fact that my -- my R square is -- I'm
24 explaining 99 percent of the variation means all these
25 possibilities are not even really worth talking about in the

1 first instance, but nonetheless, I control for them in that
2 manner. Is that understandable?

3 Q. It's not for me to say, but I'm hoping it is.

4 You also used the phrase "error structure" in
5 answering my question to you earlier about whether -- if the
6 short-term measures had an effect before 2002, would those
7 have been sustained and whether it was picked up by your
8 model.

9 A. Right.

10 Q. With the focus on the phrase "error structure," we'll add
11 that to the list of econo speak that we've heard today, and
12 would you please explain to the jury what that means?

13 A. Okay, if you've grown up in my vintage, the classic
14 models of econometrics would assume that anything you're not
15 measuring is purely random and uncorrelated over time. More
16 modern econometrics allows us to consider environments where
17 errors are correlated over time so that we're systematically
18 underpredicting flock size at some point in time, we're
19 systematically overpredicting flock size at some point in time
20 in a manner in which those things are correlated. So my error
21 structure, by using, technically, what's called Newey-West
22 standard errors, I'm allowing for that auto-correlated
23 structure, that in conjunction with the time trend.

24 Q. I guess I'm just reacting to the Dewey-West -- whatever
25 you said.

1 A. Newey-West.

2 Q. Newey-West.

3 Just give us one sentence in lay terms. What does
4 that mean? And I'm going to then move on.

5 A. It's not -- it's smoke. The concerns that have been
6 raised --

7 Q. Okay.

8 A. -- are not -- in my opinion, are not material. If I were
9 an editor of a journal and a referee were casting stones at
10 someone's model, for those reasons I would -- I would discard
11 the criticism.

12 Q. Let me shift now to another subject. You were asked a
13 series of questions about whether you included in your
14 analysis whether an individual producer, what it did or didn't
15 do with respect to cage density --

16 A. Um-hum.

17 Q. -- what it did or didn't do with respect to backfilling.

18 Do you recall those questions earlier?

19 A. I do.

20 Q. All right. Does that matter?

21 A. The -- if an individual -- what matters is if individual
22 expansions and/or cheating, not complying because of the
23 audits and so forth, led to such dramatic increases in
24 production by a large number of producers that overall output
25 didn't shrink. If overall output is lower, then consumers are

1 going to pay higher prices because demand is inelastic.

2 So just a classic example that I use in my class, I
3 play the prisoner's dilemma all the time, and you can imagine
4 some students, we have an event in Bloomington, Indiana called
5 The Little 500. It's mirrored after the Indy 500, which is
6 like an hour north of us, but this is where the stories and
7 fraternities have a big bicycle race. And it is the party
8 event of the century in Bloomington, Indiana, and what it
9 means as a professor, likely no students show up to your
10 class.

11 So here's an example I give to my students. Imagine
12 that all the students get together and agree to, Hey, let's
13 not study for Baye's test, he can't possibly flunk all of us,
14 right? And so they leave the room. You know, 99 of the
15 students go to the Little Five and do the thing that they do
16 that their parents don't want to read in the newspaper the
17 next morning, and the one goes home and studies.

18 What happens to the one that studies? He has the
19 best grade in the class, and he benefits from the fact that
20 everyone else colluded, right? So the question that I always
21 ask them is: Is he part of the cartel? I mean, if he's there
22 when you're agreeing to restrict output, it's immaterial
23 whether he actually abides by that or not.

24 Now, as Mr. Levine said, the guidelines didn't
25 prohibit expansion. So I'm not likening expansions to

1 cheating on the cartel. But it emphasizes the fact that if --
2 just because -- just because a handful or many of the
3 individuals engaged in expansions, the question is: Are those
4 expansions sufficient to offset what everyone else in the
5 cartel did? That's the economic question, and that's why I
6 didn't spend resources attempting to find data that is
7 incredibly difficult to collect in a systematic manner that is
8 ultimately irrelevant for answering the antitrust question,
9 which is, in my mind, did the alleged conspiracy result in
10 higher prices paid for eggs and egg products by the
11 Plaintiffs. And that's a simple question of what happened to
12 total output.

13 Q. What happened to total output? Let me use that as a
14 segment then to just double back on this question or two from
15 Defense Counsel for a moment. Their questions to you, in
16 substance, were: What about what Rose Acre may have done in
17 terms of increasing capacity -- or production? Excuse me. Or
18 what about what ABC producer may have done in backfilling or
19 not backfilling?

20 Why, Professor Baye, does -- is that not the proper
21 measure of -- is that not the proper analysis if -- if the
22 question is what happens to the total market output is
23 framed -- as framed in this case?

24 A. From an economic viewpoint, anyone that participates in
25 the coordination is a party to the coordination, right? And

1 so the question is when you have co-conspirators, whatever you
2 lawyers want to call these people in this particular matter,
3 when you've got individual companies that control that much of
4 the flocks in the U.S., right, and you ask the question, if
5 these guys get together and restrict output, that's a large
6 enough fraction of flock size that even if Rose Acre were to
7 expand, it's probably not physically possible for it to expand
8 enough to offset what happens if everyone else did.

9 And then the question you ask is: Gee, if nobody
10 had been party to the Trade Association's attempt to restrict
11 output and raise price, if nobody was participating, if Rose
12 Acre wasn't participating, would anyone else have
13 participated, right?

14 Everyone's -- in my mind, everyone is part of that,
15 and that's why I don't understand the legal part about why
16 these are co-conspirators. In my mind, it's part of who's
17 part of the UEP, who's involved in engaging in an industry
18 practice based on the record that I've reviewed in any event
19 is designed to restrict output.

20 Q. Please turn to page 289 of your deposition for a moment.
21 Tell me when you have that there.

22 Professor Baye, do you have page 289?

23 A. I do.

24 Q. Okay. And directing your attention to page 289, starting
25 on line 8, you were asked some questions, some of which were

1 then later asked to you by Defense Counsel about cage space
2 restrictions and whether they, in and of themselves, had an
3 effect in your model.

4 Do you see that?

5 A. I do.

6 Q. Would you please explain to the jury the extent to which,
7 if at all, cage space restrictions were -- were included as
8 part of your model and how that all played out, please?

9 A. Yeah. They're included as part of my model and what --
10 what Mr. Levine did here, and what I distinctly recall him
11 doing at my deposition is any time I wanted to talk about the
12 other models that I ran, he always wanted to talk about that
13 one specification. Which, as I mentioned this morning, is the
14 most conservative. If you go to my Specification 9, what you
15 observe is, in Period 1 and 2, there are some conspiracy
16 effects. There are some reductions in output occurring in
17 Specification 9, which is, in fact, more general than my main
18 specification. So if you run the kitchen sink model, you
19 actually can't reject the hypothesis that the conspiracy
20 reduced output under Restriction 1 and 2 if you lower your
21 scientific standard from 99 percent to 95 percent. Okay.

22 So -- so my view is, you know, I think to kind of
23 point to one single event, it's clear that when you restrict
24 cage size, something's going to happen. The point that I made
25 in my report is that over time, the guidelines evolved until

1 eventually you have the backfilling ban, you've got the 100%
2 rule, which was, based on my understanding, discussed in
3 meetings prior to the time it was actually implemented at a
4 point in time when it would have induced producers and
5 potentially retailers to sign up for the program, Animal Care
6 Certified sounds like a good deal, and once you get everyone
7 hooked, once you get 100% of a compliance, then you can -- you
8 don't even have to call it Animal Care Certified anymore, you
9 can just call it UEP Certified. Which, in my mind, means
10 nothing and everyone's stuck. Because if I've got a contract
11 with Kroger for UEP eggs, that means I can't write a contract
12 with anyone else without being in breach of my contract. And
13 that's why, in my opinion, the 100% rule is a restraint of
14 trade. It's not because the coefficient on this thing and the
15 econometric model is statistically significant or something.
16 That's absolutely asking the wrong question, and I do mention
17 that in my report.

18 Q. You've mentioned in your answer just now, I thought I
19 heard you use the phrase "100% compliance by UEP producers."
20 I'm just looking to understand that reference in the context
21 of the tipping point analysis and other percentages that
22 you've given. Would you explain, please, or clarify, either
23 one?

24 A. Yeah, it's just that it's a process to grab additional
25 producers into a program. Right? And you can create a

1 virtuous circle by, you know, signing somebody up on the
2 program. That's why if you look at the United Voices, very
3 early on it's communicating, based on my recollection of the
4 review of the documents I did, it's very quick to point out
5 who's signing up, who's signing up, who's agreeing to do this.
6 From an economic viewpoint that's just signaling to other
7 market participants, hey, this thing's getting traction, you
8 can sign up too. And then once people sign up, the 100% rule
9 becomes a mechanism whereby you're foreclosing the ability of
10 other producers that aren't part of the UEP Certified to get
11 business.

12 Q. You're not -- I'm sorry, finish.

13 A. And as I look at the evolution, the snapshot that
14 Mr. Levine was showing us was from 2004, but my recollection
15 is, if you look at the entire evolution, the initial -- the
16 initial signup got pretty good traction early on and then hit
17 that 85 percent point and then after that, it is -- it is --
18 you start seeing other players like Michael Foods come in, you
19 start seeing other people because they need eggs and people
20 can't have facilities dedicated for non-UEP Certified eggs.
21 Because if someone buys one of their eggs, then they can't
22 sell a UEP Certified egg.

23 Q. Are you suggesting that 100 percent of the producers in
24 the UEP had to participate for this alleged conspiracy to be
25 effective?

1 A. Oh, absolutely not.

2 Q. All right. Explain, please.

3 A. Because once you get a critical mass you're going to
4 force the industry to the point. That's what the 100% rule
5 does, is it doesn't require everyone to voluntarily sign on,
6 it creates -- as a matter of economics, an incentive for the
7 market to tip in a manner that individuals are put in a
8 position where, golly, I've got to do it. If I want to sell
9 to Kroger or whoever, I've got to have this, and boom, then
10 you're already there.

11 Q. Please turn to page 114 in your deposition. Tell me when
12 you're there, please. Are you there?

13 A. I am here.

14 Q. All right. At the top of the page going down, you were
15 asked some questions and it was read from the transcript about
16 the 100% rule alone in conjunction with -- or in conjunction
17 with cage space restrictions having an effect on egg
18 production, and I thought I heard you, in answering Defense
19 Counsel's question, to say, Go back, and then you were
20 stopped. And if I misheard you, then I apologize. But I had
21 the sensation that you had something more you were going to
22 say. And so before I ask you the next question, I want to
23 find out if you have something further you wanted to add with
24 respect to this portion of the transcript.

25 A. It's basically what I just told you. I've given you the

1 Cliff Notes version of what my testimony is. It's the focus
2 on Specification 1 that occurs way earlier in my deposition.
3 The whole deposition begins to focus solely on that one piece
4 of evidence. When I've got -- I've got six different
5 regression models that I utilize and for the two regression
6 models that focused on cage space restrictions I've got nine
7 different specifications for those things. So in my opinion,
8 focusing on a single specification doesn't make -- doesn't
9 make sense.

10 Q. What did you mean when we heard testimony earlier about
11 the cage space restrictions alone having an effect or not
12 having an effect? Would you please clarify.

13 A. Yeah, the effect is exactly the tipping point that I
14 mean. Just because you observe the 100% rule being imposed in
15 Restriction Period 1, that doesn't mean the market immediately
16 tips to UEP Certified eggs. It's going to take a couple of
17 years maybe for that to happen. And when that happens, we
18 might be in Restriction Period 4, Restriction Period 5, right.
19 So as I indicated in my report, a part of what we're picking
20 up there in the latter part of the evolution of the UEP
21 Guidelines is the kicking in effect or the tipping effect from
22 the guidelines. So -- and again, that's -- that's what I have
23 in my report.

24 Q. Is this related to whether there were guidelines without
25 restraints of trade?

1 A. I'm sorry?

2 Q. Was this -- is this related to whether there were
3 guidelines that were in effect without restraints of trade? I
4 may be asking a bad question. Let me try this again.

5 Would you explain what you meant -- or withdrawn.

6 Would you explain what it would mean for the 100%
7 rule having no effect on its own?

8 A. It would mean that it didn't put buyers, potential
9 customers in a precarious situation of being effectively
10 forced to buy UEP eggs because there are no other types of
11 eggs available because no one else will sell the other eggs
12 because if they do so, it ruins their ability to sell UEP
13 eggs.

14 Q. Turn, please, to page --

15 A. UEP, ACC Certified eggs.

16 Q. Please turn to page 293 of your deposition, sir. Tell me
17 when you're there.

18 A. Okay.

19 Q. You were asked questions by Defense Counsel about some
20 passages on this page of -- I have starting on line 4, do you
21 see that, with the reference to, The 100% rule is already in
22 effect for Restrictions 1 and 2? Beginning on line -- line 6.

23 A. Yeah.

24 Q. All right. Would you please explain your testimony there
25 in terms of the 100% rule and its effect.

1 A. Yeah, it's exactly what I was -- what I was saying there,
2 the 100% rule is already in effect and I've identified that
3 effect. And whether you find it in that one coefficient or
4 not is immaterial for answering the economic question about
5 whether it potentially tipped.

6 Q. You were asked questions by Defense Counsel about whether
7 you measured, if an individual producer backfilled before
8 2005, do you recall?

9 A. I recall the question.

10 Q. And do you recall being asked questions by Defense
11 Counsel about whether you measured if an individual certified
12 or non-certified producer backfilled before 2005?

13 A. Yes.

14 Q. What relevance, if any, does this have to the economic
15 analysis that you performed, sir?

16 A. That's all in the before period, and so what we're going
17 to compare is once the rules are in place, what does the after
18 period look like? I don't have the data to, you know, to walk
19 into Rose Acre's henhouses and check whether they're
20 backfilling or not. I don't have access to a lot of
21 information that would allow you to do that. It would be
22 costly to do that. And at the end of the day, if I discovered
23 that Rose Acre was or was not backfilling, it would say
24 nothing about whether, from the standpoint of the entire
25 market, it's the market that's being monopolized here, under

1 the alleged conspiracy theory. It's the market and not Rose
2 Acre attempting to monopolize its own situation. So looking
3 at Rose Acre's backfilling practices is uninformative.

4 Q. In your analysis, Professor Baye, when you analyze the
5 effect, if any, of flock size output and egg -- and egg
6 production output for the total market, did that or did that
7 not include whatever Rose Acre may or may have not done with
8 respect to expansion or backfilling or anything else?

9 A. It excluded -- it included -- it included Rose Acre and
10 everyone else. It included anyone whose flocks are included
11 in the USDA data. Anyone whose production of eggs is included
12 in the USDA data.

13 Q. You were asked some questions by Defense Counsel about
14 the inclusion of certain producers identified as
15 co-conspirators in one or two of the slides that you showed to
16 and explained to the jury, do you recall?

17 A. I don't know that I explained the slides to the jury
18 about what that meant, but, yes, I remember the conversation.

19 Q. All right. Were the producers who were identified in
20 that chart, do you understand them to be egg producers --
21 ConAgra aside, which you've explained -- who sold eggs to one
22 or more Plaintiffs during the alleged conspiracy period?

23 A. Yeah. I showed that table that each and every one of
24 those combinations had transactions.

25 Q. And did those two tables include other producers who may

1 or may not have been co-conspirators in this case, but who did
2 not sell eggs to one or more Plaintiffs during the alleged
3 conspiracy period?

4 A. I'm sorry, say that again.

5 Q. Yes.

6 MR. BLECHMAN: Let's -- let's bring up a slide, I
7 want to say 27, just so we orient ourselves. I may not have
8 the number right. No, that was close. 28. Do you have that
9 there? 28 and 29. Let's stick with 29. If we may have that
10 brought up, please. These are -- is that up? Not quite.

11 THE WITNESS: Did you say 28?

12 BY MR. BLECHMAN:

13 Q. I said 29. These are companies that -- withdrawn.

14 These are producers who sold eggs to each of -- to
15 one or more of the Plaintiffs during the alleged conspiracy
16 period, correct?

17 A. If they're identical to the one on the other table,
18 that's correct.

19 Q. I believe you'll find them identical, other than the
20 reference to ConAgra, which you've explained.

21 A. That's correct.

22 Q. All right. Are you suggesting by Table 28 and -- or
23 Slide 28 and Slide 29 that the producers who are identified in
24 these two tables are the only co-conspirators who participated
25 in the alleged conspiracy?

1 A. Again, I don't know as a matter of law what the answer
2 is.

3 Q. As a matter of economics.

4 A. As a matter of economics, anyone that was a member of the
5 UEP and agreed to restrict output, to raise prices, is -- is
6 part of the conspiracy, in my mind, as an economist. Whether
7 they're listed here or not -- and, you know, that's -- that's
8 my view of the world, and I don't know why those other guys
9 aren't included here.

10 Q. Very well. Finally, Professor Baye, have any of the
11 questions you've been asked by Defense Counsel caused you to
12 reconsider in any way any of the opinions that you have
13 expressed to this jury today in connection with your
14 testimony?

15 A. Not at all, no.

16 MR. BLECHMAN: Your Honor, I have no other
17 questions.

18 THE COURT: Any recross?

19 MR. LEVINE: Two quick questions.

20 THE COURT: Go ahead.

21 RECROSS-EXAMINATION

22 BY MR. LEVINE:

23 Q. Dr. Baye, and if you turn to 31 -- I think it's Slide --
24 I think it's Slide 31 of your presentation today.

25 A. Okay.

1 Q. I just want to fix -- and I believe it's also represented
2 in Exhibit 7 of your report. As of 2004, about 85 percent of
3 the nation's flock was on the UEP Certified Program, correct?

4 A. And 90 percent of eggs, that's correct.

5 Q. Okay. And I just want to be clear. Is it your position
6 that every certified producer is a member of the alleged
7 conspiracy?

8 A. I'm just -- I have no opinion on who did what. I don't
9 know who actually signed it. If these numbers are correct, I
10 would say anyone who participated in a scheme to reduce output
11 and raise prices participated in the conspiracy.

12 Q. Right. My question was more specific. Is it your
13 position that anybody who was a certified producer is a member
14 of the alleged conspiracy?

15 A. I can't -- I can't answer that question.

16 Q. That you have no position on that?

17 A. I think I need more information about that.

18 MR. LEVINE: Okay, that's all. Thank you.

19 THE COURT: Anything more from anybody?

20 MR. HARRIS: No, Your Honor.

21 MS. SUMNER: No, Your Honor.

22 MR. BLECHMAN: No, Your Honor.

23 THE COURT: Travel safely.

24 THE WITNESS: Thank you, Your Honor. Sorry about
25 your football team. I'm a Cowboy fan.

1 THE COURT: I was watching the Notre Dame game, too.
2 That was doubly bad.

3 MR. BLECHMAN: Your Honor, on behalf of the
4 Plaintiffs, may we have a minute to reconsider Professor Baye?

5 THE WITNESS: I'm a Cowboy fan. I feel your pain.

6 MR. BLECHMAN: Your Honor, may we have two minutes
7 to reconsider --

8 THE COURT: Travel safely, Professor.

9 Where are we? We can take a five-minute break. I
10 would like to use as much time as we can, since it's not nasty
11 out. It seems to be okay. So do we have something we can do?

12 MR. LEVINE: Yes, Your Honor.

13 THE COURT: Okay, let's do take a very short break,
14 like five, six minutes, if anybody needs it, and come straight
15 on back, please.

16 THE DEPUTY CLERK: All rise.

17 (Jury out.)

18 THE COURT: Okay, if you need a break, just don't go
19 far.

20 MR. BLECHMAN: Thank you.

21 THE COURT: What is next, by the way?

22 MR. LEVINE: We're going to call Mr. Hurd.

23 (After recess:)

24 THE DEPUTY CLERK: All rise.

25 (Jury in.)

1 THE COURT: Okay, you all may take your seats. I'm
2 watching Mr. Coyle and each time he comes back with you guys,
3 he's working very hard not to be laughing or smiling. I can
4 tell, he's really holding it in.

5 Okay, the Defense may proceed.

6 MR. LEVINE: One housekeeping matter.

7 THE COURT: Yes.

8 MR. LEVINE: Apologies for not bringing it up. I
9 believe the Plaintiffs have rested in total.

10 MR. BLECHMAN: Yes, Your Honor.

11 THE COURT: Yes.

12 MR. LEVINE: So we will later make a --

13 THE COURT: Fair enough.

14 MR. LEVINE: Rose Acre calls David Hurd.

15 THE COURT: Okay, come on up.

16 THE DEPUTY CLERK: Please remain standing and raise
17 your right hand.

18 (Witness sworn.)

19 THE WITNESS: I do.

20 THE DEPUTY CLERK: Could you please have a seat.
21 Please state your full name and spell your last name for the
22 record.

23 THE WITNESS: David Stoddard Hurd, H-U-R-D.

24 THE COURT: Okay, Mr. Hurd, how does it look from
25 here --

1 THE WITNESS: It looks --

2 THE COURT: -- as opposed to from there? Just make
3 sure you're equally comfortable.

4 And you may proceed, Mr. Levine.

5 DAVID S. HURD,
6 called as a witness herein by the Defendants, having been
7 first duly sworn, was examined and testified as follows:

8 DIRECT EXAMINATION

9 BY MR. LEVINE:

10 Q. Good afternoon, Mr. Hurd.

11 A. Good afternoon.

12 Q. Can you tell the jury by whom you are employed?

13 A. Rose Acre Farms.

14 Q. And what is your current title?

15 A. I am the vice president in charge of live production.

16 Q. We'll get into that a little bit more, but just "live
17 production" is not a term you hear often. Can you just
18 explain to the jury what that means?

19 A. All of the areas of our company that have live birds,
20 from our breeder farm, hatchery, pullet grow-out to layer
21 farms.

22 Q. And all of that is under your purview?

23 A. Yes.

24 Q. And could you briefly describe your educational
25 experience for the jury?

1 A. I graduated in 1986 from Purdue University in Indiana
2 with a degree of animal -- bachelor's degree in animal
3 science.

4 Q. And after you graduated from Purdue, what did you do?

5 A. In May of '86, I started with Rose Acre Farms.

6 Q. And have you been there continuously since?

7 A. Yes.

8 Q. And what did you start out as? What was your first
9 position at Rose Acre?

10 A. My first position was as a production manager trainee, so
11 I spent time in the various live production departments from
12 breeder farm, hatchery, pullet farms, where we -- handfeeding
13 crew, replaced baby chicks, vaccinated the birds, beak
14 trimmed, layer farms on the moving crews, and running layer
15 houses.

16 Q. And where were you doing this, this training program?

17 A. It started off in Seymour, Indiana. It's about an hour
18 south of Indianapolis. And then within less than a year I
19 moved up to northern Indiana. We had some farms up in that
20 location.

21 Q. And did you continue in your position as a manager
22 trainee?

23 A. Yes.

24 Q. And how long were you in that training program for?

25 A. Um, when I moved up to northern Indiana, I was made a

1 layer house farm manager, so I had two houses I was
2 responsible for. And I was in that position for about a year,
3 and then became an administrative assistant working with
4 Sylvia Dropchek and reporting to her through David Rust, the
5 owner and founder.

6 Q. Okay. And just -- what were you doing as a layer house
7 manager? I mean --

8 A. So the birds are housed in cages. Every day we'd come
9 in, we'd check the feed, water, and air, make sure everything
10 went well the night before, and we'd do the daily routine
11 making sure the birds were being fed properly, that the eggs
12 are being collected correctly and getting them ready for the
13 night cycle.

14 Q. And were there more than two houses on that farm?

15 A. On that farm, there were 12 houses at Newton County Egg
16 Farm in Burke, Indiana.

17 Q. And you were only responsible for two?

18 A. Yes.

19 Q. Does that mean there were other layer house managers?

20 A. Yes, yes.

21 Q. And when you moved to being an administrative assistant
22 what kind of duties were you doing at that point?

23 A. Then I was -- it was before we had complex managers, we
24 had one main responsible person on a farm site, so we had
25 department heads. So I was acting as the liaison, so to

1 speak, for the northern farms coming down to Seymour, Indiana
2 once a week to report on what was going on, hearing about any
3 concerns or issues that corporate had to go back up to the
4 farms the following week to work on.

5 Q. And at what point did you become an administrative
6 assistant?

7 A. That would have been probably 1988, so about two years
8 into my training.

9 Q. Okay. And how long did you stay in that position?

10 A. Until about 1989, and then I was promoted to be vice
11 president of our breeder hatchery and pullet farm, part of our
12 live production department.

13 Q. Okay. And where were those facilities, the breeder
14 hatchery?

15 A. In Indiana, in Seymour.

16 Q. That was all in southern Indiana?

17 A. The hatcheries and the breeder farms were. We had pullet
18 farms located wherever our layer farm capacity is. So spread
19 out in the different locations.

20 Q. Okay, and at that point, how long did you stay in the
21 position of VP of pullets, hatchery, and breeder farms?

22 A. Until about 2013 where I took on my -- my current role.

23 Q. Okay. And what is your main goal or what do you see as
24 your mission as a VP of live production?

25 A. It's ever changing, but the biggest part of what I try to

1 do every day is work with our different farms on the
2 production side. A big component of what we do is -- is
3 producing eggs and doing it as efficiently as we can. So
4 there's a long logistical process that happens with not just
5 myself but with a crew of people to make sure that we have
6 fertilized eggs on time, that hatch into day-old baby chicks
7 on time, that fill up pullet growing cages that then can be
8 moving to laying flock farms so that eggs will be produced in
9 a continuous year-round manner.

10 Q. Okay, we'll get into the production --

11 A. Yes.

12 Q. -- sort of stages in a bit.

13 And did you have any other responsibilities at Rose
14 Acre Farms in terms of management, executive committees or
15 Board of Directors?

16 A. I was on the Rose Acre Farms' Board of Directors from
17 1996 to about 2004, and then again from 2012 to 2015.

18 Q. And about how many employees report to you?

19 A. Um, about half of our employees work in the live
20 production department, so it's around 1,000 employees that are
21 in the live production department.

22 Q. And how many direct reports do you have?

23 A. Maybe eight or nine.

24 Q. And what level are they?

25 A. They would be director of production that works with the

1 laying flocks, feed mill quality personnel, kind of a midlevel
2 management-type positions.

3 Q. Okay. Now, whether in this trial or otherwise, have you
4 ever heard the term "vertically integrated" as it applied to
5 an egg producer?

6 A. Yes.

7 Q. Okay, do you have an understanding whether Rose Acre
8 itself -- considers itself a vertically integrated producer?

9 A. Yes, we do.

10 Q. And can you explain to the jury what that means.

11 A. If you're a smaller producer and just have some laying
12 chickens, you may not have the ability to grow your own
13 replacement pullets. So you could go out and buy them on
14 contract from somebody. If you had your pullet farms, you
15 could go out and buy day-old baby chicks to hatch to grow in
16 your pullet farms. You would buy feed if you didn't have your
17 own feed mills. So being vertically integrated means we are
18 trying to do all of the steps of the production as much as we
19 can to have ultimate control over our quality and
20 efficiencies.

21 Q. And why is it important to Rose Acre to have that control
22 over all of the stages of production?

23 A. Well, as I was mentioning before, the logistic part of
24 the job is very -- um, we're looking out, you know, a year and
25 a half, two years, to what we have, when we know they need to

1 be replaced and we want to make sure that we have some control
2 over that, that we're not being kicked out of a schedule
3 because somebody else had a chick delivery ahead of ours or
4 pullet growing opportunity, things of that nature. Plus it
5 helps us control our costs, so...

6 Q. Okay. Do you remember seeing during the opening a
7 demonstrative on egg production?

8 A. Yes.

9 MR. LEVINE: Could we bring up the demonstrative on
10 egg production?

11 BY MR. LEVINE:

12 Q. And do you see in the upper left-hand corner it says --
13 I'll tell you in a sec what it says.

14 Raising breeder flocks.

15 A. Yes, I do.

16 Q. Okay, can you explain to the jury what that means.

17 A. So we do not do genetic research for the type of leghorn
18 laying chicken that we use. We buy that as a day-old baby
19 chick. So we're buying females and then males. And then as
20 they grow in our pullet growing opportunity for -- or farms,
21 for the breeder farm, they get to become sexually mature and
22 then we move them to our breeder farm where they stay until
23 about 70 weeks of age where males and females can interact and
24 we get fertile eggs.

25 Q. Okay, and the breeder farms are separate from your laying

1 farms?

2 A. Yes.

3 Q. Okay, so this is simply just to produce --

4 A. Fertilized eggs.

5 Q. -- fertilized eggs, okay. And then you want those

6 fertilized eggs in order to do what?

7 A. Well, then based on the size of the housing needs we have

8 on each week, we have a schedule for how many egg -- hatching

9 eggs that we're going to collect and put into incubators,

10 which it takes 21 eggs to -- 21 days to take an egg from set

11 to hatch. And then we time how many eggs -- I mean, how many

12 chicks are going to be hatching and then delivery and that

13 part of the pipeline.

14 Q. And is the hatching facility connected to the breeder

15 farm?

16 A. No, it's offsite. So the eggs are collected every three

17 or four days -- daily they're collected down into the cooler

18 onsite, and then every three to four days they're brought over

19 to the hatchery for that cooler for staging.

20 Q. Okay, how long can it stay at the hatchery before it

21 needs to hatch?

22 A. We really like to try to have the eggs no older than ten

23 days. We have done some things where we can hold them until

24 about two weeks, but the quality doesn't quite last the longer

25 you hold that egg. But basically you're holding it at a

1 temperature where you stabilize the fertilization where it
2 doesn't go any further until you put it into the warm
3 incubators and start that process.

4 Q. Okay. And then once you start the warming process, what
5 happens then?

6 A. It's about 18 days that it's in an incubator tray where
7 we're supplying heat and humidity, and it's rotating, and then
8 that last three days they begin the hatching process. So
9 they're moved from the center to a hatcher, into a hatch tray,
10 where they're allowed to hatch out.

11 Q. Okay. How many breeder farms does Rose Acre have right
12 now?

13 A. Um, four.

14 Q. And how many did they have when you started with them?

15 A. Two.

16 Q. Okay, and how many hatching facilities do they have?

17 A. One.

18 Q. Okay, and where is that?

19 A. They're all located in Seymour, Indiana.

20 Q. Okay, so all of the -- all of the eggs from the breeder
21 farms are collected and sent to this one hatchery?

22 A. Yes.

23 Q. Okay. And once the -- once the eggs are hatched, what
24 happens then?

25 A. The day-of-age chicks are processed. We use the females,

1 we do not use the males. They are beak trimmed at our
2 hatchery, given a vaccination shot. They're boxed and put on
3 environmentally controlled trailers where they're taken to
4 whatever state we have in the pipeline as next to fill.

5 Q. How far can they travel?

6 A. We have two drivers on it. So we're taking from Indiana
7 to the coast of North Carolina, that's about our comfort
8 level. So, you know, 16, 17-hour trip.

9 Q. And what about your farm in Arizona and the like?

10 A. That one's a little bit outside of our comfort level of
11 taking day-old baby chicks. We're actually, for that
12 particular farm, buying in from an outside hatchery that's
13 closer.

14 Q. And then once the -- once the young chicks are delivered
15 to whichever facility you need them, what happens then?

16 A. Um, they're -- they're placed in cages. We show them
17 feed and water, we supervise that process for the first
18 several days, very intently, because we want to make sure they
19 find feed and water, and then they're grown out to 16 weeks of
20 age. During that pullet grow-out cycle, we're giving them
21 other vaccinations, poultry vaccinations that we feel are
22 important for their -- for their long-term health.

23 Q. And just to be clear -- by the way, these pictures that
24 are being shown on the demonstrative, are these pictures of
25 actual Rose Acre facilities?

1 A. Yes.

2 Q. And what facility is this picture from?

3 A. That one, I think, is from our Lone Cactus, Arizona
4 facility. It's a standard pullet cage that we have for
5 starting chicks.

6 Q. And can you tell from 1 and 2 where they're taken from?

7 A. 1 is our Storm Creek facility and 2 is our hatchery.

8 Q. And again, your hatchery's in Seymour?

9 A. Seymour, Indiana, yes.

10 Q. Now, how often do you purchase breeding stock in order to
11 start this entire process?

12 A. We get about two times a year that we purchase day-of-age
13 parent stock.

14 Q. And you said you have four breeder farms now?

15 A. Yes.

16 Q. And they're all in northern Indiana?

17 A. No.

18 Q. I'm sorry.

19 A. Around the hatchery in Seymour.

20 Q. In Seymour, okay.

21 Okay, so we're now at the pullet and they're grown
22 out to about 17 weeks?

23 A. Yes.

24 Q. What's at 17 weeks?

25 A. That's when a young chicken starts becoming sexually

1 mature, and you -- she's ready for the laying process. Prior
2 to that, you can't get her to lay eggs.

3 Q. So pullets don't really lay eggs?

4 A. No, they don't lay eggs.

5 Q. So at 17 weeks that's when they start to have production?

6 A. Yes.

7 Q. And how long does a hen lay eggs for? We've heard a lot
8 of different metrics.

9 A. Yeah, depending on the genetics of the bird and whether
10 we're going to molt that flock to extend its life cycle.
11 Typically we're right around 80 weeks of age on a single-cycle
12 flock and about 115 weeks if we molt and extend the life.

13 Q. And single cycle meaning?

14 A. Not molted.

15 Q. Okay. And the molt we'll get to, but if you do a molt it
16 will extend the hen's life until what?

17 A. About 115, usually, you know, whatever age we molt, it's
18 in that 40 weeks more of production that you can add on to her
19 lifespan.

20 Q. Now, in terms of -- you talked about this being sort of
21 a -- or you intimated this is a scheduled -- there's a lot of
22 scheduling that goes on in this production process. How long
23 is the planning process for Rose Acre Farms?

24 A. Well, I mean, it's like I was saying earlier, about a
25 year and a half, two years. We're looking at what's currently

1 in our housing today, when they're going to become of age and
2 stepping back to make sure that we have all of those other
3 steps lined up, from the size of the houses to know what size
4 pullet flock you need to grow, to know how many chicks you
5 want to hatch on a certain day to how many eggs you need to be
6 collecting and batching together at the breeder farm site.

7 Q. How do you know how many eggs you're going to want in a
8 year and a half or two years?

9 A. For hatching eggs? Well, we have trends of knowing how
10 many chicks hatch over time. We know our liveability rates of
11 what we should expect during a pullet grow-out cycle. And
12 those are our targets that we shoot for.

13 Q. And how do you know how many -- ultimately how many hens
14 you need in a year and a half, you know, to supply your
15 customers in a year and a half?

16 A. I -- I work on filling the layer houses up to capacity.
17 I'm not sure what our customers need in a year and a half.
18 So...

19 Q. Does -- well, let me ask you: Does sales at all factor
20 into -- you know, do you discuss the matter with sales to
21 determine what the demand might be in a year and a half or two
22 years?

23 A. Well, yes, and specifically, especially on the specialty
24 egg side of it, because some of those are dedicated feed that
25 we feed the chickens or the style of housing that we put them

1 in, and we need to know upfront what sales projections are to
2 make sure that as we're filling the hatchers and pullet farms,
3 that we've got the right amount of birds destined for the
4 right area.

5 Q. Okay. And what would happen if there's a disruption in
6 that schedule?

7 A. It's -- it's -- it's hard to deal with at times. We
8 figure out a way. When you look at a laying flock, if you
9 wanted to lay when it moves out, well, we already have a
10 pullet flock growing to be its replacement, and we might be
11 able to handle a week's delay, but those pullets are going to
12 lay eggs at 18 weeks and the pullet farms are not set up to
13 handle eggs. So we would lose egg capacity at the pullet farm
14 site.

15 Pullets don't move on time. We have chicks 21 days
16 before that we've already put in the hatcheries -- into the
17 hatchers and they're going to be hatching and they have to
18 have a place to have feed and water, day one. We can't just
19 hold them for a week waiting on an opening in our schedule.

20 And then also, back to the breeder farm schedule, if
21 we're not ordering the right amount of breeders that would lay
22 the right amount of fertile eggs and we come up short, then
23 we're going to have to buy day-of-age baby chicks on the
24 outside market and try to see if we can source those.

25 Q. And do you ever like to have empty facilities?

1 A. No.

2 Q. Why not?

3 A. It's -- it's kind of a visual representation that we're
4 not doing our job quite right with the logistic part, and the
5 amount of dozens that we can produce in production and give to
6 processing just helps lower all of our overall production
7 costs or costs of production.

8 Q. So if a facility is empty, does that add to Rose
9 Acre's cost?

10 A. Yes. There are fixed costs that happen in an empty house
11 not producing any eggs.

12 Q. And I bet management's not happy if that happens?

13 A. No. No.

14 Q. Okay. And you're responsible for that, correct?

15 A. Yes.

16 Q. Okay. You look happy. Let me turn to a little bit
17 different of a subject.

18 What are the different ways in which hens are kept
19 at Rose Acre Farms? And here I'm really referring to the
20 laying hens.

21 A. The majority of our hens are in commercial cages. We
22 have some that are in aviary cage-free setup, and we have some
23 small amount of free-range.

24 Q. What is the difference between cage-free and free-range?

25 A. Cage-free would be where a bird has an opportunity inside

1 a structure to pick and choose wherever it wants to go. We
2 kind of restrict that area so that it's not, you know,
3 600 feet that they're looking at, more in 50-foot sections.
4 Free-range would be the same indoor setup but then are also
5 allowed to go outside for periods of the day.

6 Q. And why do you offer free-range products?

7 A. We had some customers that would like to have a
8 free-range product.

9 Q. And why do you offer cage-free products?

10 A. We have customers that also want cage-free products.

11 Q. And how much of Rose Acre's production is represented by
12 hens in cages?

13 A. We're approximately, capacity-wise, around 25 million,
14 26 million laying hens total. About a little over 4 million
15 of that is in cage-free production.

16 Q. And how much is in free-range?

17 A. About 100,000.

18 Q. Oh, okay. Not a great demand?

19 A. No.

20 Q. Okay. So the rest, 20, 21 million are in cages?

21 A. Yes.

22 Q. Okay. And when did Rose Acre start cage-free production?

23 A. Well, Rose Acre started off as a cage-free producer and
24 then went to cages. But our current growth in cage-free
25 probably started back around 2012. We've always had some

1 smaller cage-free flocks even before that.

2 Q. Let me ask you, you said you started as a cage-free
3 producer. When -- when were they a cage-free producer the
4 first time?

5 A. Well, Lois and David started the farm back in the late
6 '50s. I think they became a company in '64. They started off
7 with cage-free flocks and then developed -- they were there
8 through the wave of the commercial cage implementation that
9 the industry went through and grew from there.

10 Q. And when did that wave start about cage production?

11 A. Mid-'70s, before my time.

12 Q. Okay. And you said that around 2012 -- you've always had
13 some cage-free production; is that correct?

14 A. Yes. Yes.

15 Q. But it started to take off?

16 A. Yeah. We had smaller, 10-, 13,000 bird flocks, and then
17 in around 2012, we had some opportunities to do some larger
18 aviary housing and flock sizes were, you know, about 180,000
19 birds to a cage-free flock.

20 Q. And do you have an understanding why Rose Acre started
21 engaging in cage-free production at that point?

22 A. Customers were asking more. It's more of the talk out
23 and about what -- what customers were wanting.

24 Q. Okay. Were there any other factors impacting your desire
25 to grow in cage-free production?

1 A. Customer demands was the biggest -- the biggest part of
2 it. We wanted to be able to address cage-free without going
3 back to the problems that the Rust family's experienced when
4 they first started off the business. And so a lot of what
5 we've done lately is tried to design aviary housing that
6 better addresses not only bird behavior, but makes it a little
7 bit easier for the people that have to manage and care for the
8 birds.

9 Q. What were some of the problems that they experienced the
10 first time they had cage-free production?

11 A. Um, on the floor, there's wood shavings put down. It's
12 called litter. It mixes with manure; it gets caked up. You
13 have to manage it. You have to watch for things that scare
14 birds that cause them to pile. There's pecking issues.
15 There's, you know, a larger group of birds that interact with
16 each other. So you have more negative and positive and social
17 interactions that can happen.

18 Q. You said a term that's probably not relevant to this case
19 but what does it mean, "pile"?

20 A. When birds get scared, they run to the nearest corner
21 wall and pile up on top of each other and they can suffocate.

22 Q. I gather that's not good for them?

23 A. No.

24 Q. Okay. Okay. Now, so you've been around since 1986 in
25 terms of egg production, correct?

1 A. Correct.

2 Q. Can you give us just some idea of some of the differences
3 you see between the 1990s and maybe the 2000s in terms of egg
4 production?

5 A. Um, the genetics have certainly changed over time. When
6 I started in '86, the birds had a little bit of a higher
7 mortality rate. So when we buy birds of a different strain,
8 we were given manuals from the breed companies. They compile
9 a lot of data to look at, what's a normal mortality rate per
10 day, per week, per the life cycle you choose.

11 So we're always looking to see that we're trying to
12 maintain those levels or improve upon them. I think back in
13 the late '80s, early '90s, we had a little bit of a higher
14 mortality rate with the breed of bird that we had at the time
15 and a little bit less feed efficient. So we had to put a lot
16 more feed in front of the chickens to get a certain number of
17 eggs and today -- today those efficiencies have definitely
18 increased. We've got a different breed selection choices that
19 we can do now that lay at a higher rate of lay.

20 Q. And what about in the regulatory scheme, has that changed
21 between the '90s and the 2000s?

22 A. Yes. In the 1990s, you know, obviously we had certain
23 state and issues to build houses and to house chickens. Later
24 on, different regulatory, especially at the federal level. We
25 now have an egg safety rule we need to follow where we're

1 monitoring volumes for Salmonella. We have different customer
2 programs that are coming along that are asking for different
3 questions, coming for onsite audits, things of that nature.
4 So I would say the documentation and paperwork definitely has
5 increased over the past 30 years.

6 Q. Have there been environmental regulations as well?

7 A. Yes. Yes. So different states, but basically, if you're
8 going to keep a lot of animals in one area in agriculture,
9 obviously they want to make sure that the waste, the manure
10 that's produced is handled in a -- in an efficient manner and
11 that you have storage on-site that can handle large volumes
12 and that you're selling it or applying it to land under
13 certain agronomic rates that are approved.

14 Q. And what about permitting, has that changed between the
15 '90s and the 2000s?

16 A. Yes. Permitting used to be a little bit more standard,
17 especially if you're going to add a house to an existing farm
18 site. And notification process, to neighboring affected
19 landowners, they already knew what was going on there, to our
20 new farm site that we did in North Carolina at Hyde County.
21 It took a couple of years just to get through all of the
22 proper hoops to get the right permits to be able to start
23 there.

24 Q. And you didn't experience such obstacles in the '90s?

25 A. Not to that extent, no.

1 Q. Okay. And what about the customer involvement in
2 production, has that changed again between the '90s and the
3 2000s?

4 A. Yes.

5 Q. In what way?

6 A. We would occasionally get inquiries from sales on
7 different practices we were doing, or if they could have a
8 customer stop by and look at the processing area where the
9 eggs were packed and washed -- washed and packed, pardon me,
10 and up into the layer houses to look at the -- where the birds
11 were housed to depending on the size of the customer and what
12 their -- what their programs are, we have several that we keep
13 track of.

14 MR. LEVINE: Your Honor, I'm moving on to a
15 different topic.

16 THE COURT: Then why don't we take that as a signal
17 that it's time to take a bit of a break overnight, just so
18 that everybody can get on their way safely to their homes
19 where we hope that, once again, that you have a very pleasant
20 evening with friends and family. Don't talk about the case,
21 do any research. We continue to be a bit ahead of schedule,
22 and that means to stay on that trajectory, see you tomorrow at
23 9:30.

24 THE DEPUTY CLERK: All rise.

25 (Jury out.)

1 THE COURT: Okay, there's a couple of -- Mr. Hurd,
2 you may step down.

3 THE WITNESS: Thank you.

4 THE COURT: A couple of just housekeeping things.
5 There is going to be some third-year students doing a little
6 trial advocacy, faux trial here tonight. So they'll only use
7 those tables, if you just want to clean up a tad. They won't
8 take anything, I promise.

9 Tomorrow we'll stay from about, I don't know,
10 4:30-ish -- well, 4:45 to maybe 6:15. I would like you all to
11 focus your time and brain power on things that really need to
12 be different from the last time I went through this activity.
13 There's no point in -- unless there has been some development
14 in the law that I've not paid attention to, there's no point
15 in really trying to start from the beginning or -- you should
16 assume that I rather like what I did the last time. At least
17 it's a very good template, I would think. So if you've got a
18 reason to attack it, have a good one and have an alternate
19 language --

20 MR. BLECHMAN: Very well.

21 THE COURT: -- to present. Okay? Not that I'm not
22 open-minded, but I just think it's fair to give you that frame
23 of reference. How are we, by the way, on the schedule?

24 MR. KING: Your Honor, I think what you described is
25 pretty accurate.

1 THE COURT: Yay.

2 MR. KING: Depending upon how tomorrow goes, I think
3 we can get our expert on -- experts on and off before the end
4 of this week.

5 THE COURT: Okay. And so other than Mr. Hurd, who
6 else of a nonexpert type?

7 MR. KING: We have -- we need to finish up
8 Mr. Marshall, who we had on the stand right before the
9 holiday. We have Greg Hinton, who's the vice president of
10 sales, and then Rose Acre has a couple other experts that
11 we'll be calling. And then UEP will have to decide whether it
12 intends to call somebody, but --

13 THE COURT: Okay. No decision on that yet?

14 MS. LEVINE: We're just deciding based on the
15 testimony if we can just cut down and get this trial done,
16 because a lot was done in the Plaintiffs case that we didn't
17 expect, so we think we might be able to do that.

18 THE COURT: Okay. So how many weeks is USEM going
19 to take?

20 MR. HARRIS: Just a few.

21 THE COURT: Okay. I have another question that it
22 occurs to me, showing how pathetic my weekend was. It was a
23 great weekend. But I then was concentrating on this trial,
24 and it occurs to me that when we seated the jury, there was
25 the subject of how many jurors might be turned into alternates

1 or whether we'd keep all 12. I mean, I said that we would
2 keep going as long as we had ten, I believe. I don't know
3 whether that was taken by anybody as meaning that, if these
4 folks are all still here, that they all deliberate or that we
5 were going to excuse or treat any as alternates. Please don't
6 say anything yet. I just want to revisit that to make sure
7 everybody is on a like page. You might want to go back even
8 and check the transcript to make sure that everybody was able
9 to articulate their views and that we reached some sort of, if
10 not agreement, at least understanding.

11 MR. BLECHMAN: Very well.

12 THE COURT: Okay. I -- I know what I think, but I
13 really want you all to have a moment or some time to confer
14 with each other and double-check the transcripts.

15 It's pretty clear everybody's engaged, I mean -- not
16 that you aren't terrific, but, you know -- and tremendously
17 engaging, but wow. So, anyway, that's something I just wanted
18 to put out there for you all. Okay. Have a nice evening.

19 MR. BLECHMAN: Thank you, Your Honor.

20 MR. LEVINE: Just one --

21 THE COURT: Oh, yes.

22 MR. LEVINE: I guess Rose Acre formally moves under
23 Rule 50 for judgment.

24 THE COURT: Does it? Yes.

25 MR. LEVINE: We'll be filing a brief shortly.

1 THE COURT: Okay. I think it would be most sensible
2 to assume that I'm just going to keep it all --

3 MR. LEVINE: Understood.

4 THE COURT: And after you get the briefs, if you
5 want to file a brief on it, that's great, but I think we'll
6 just keep trucking.

7 MR. BLECHMAN: Very well, Your Honor.

8 MS. LEVINE: Just for completion, UEP and USEM will
9 as well.

10 THE COURT: Okay, good. Great. Glad to hear it.
11 Okay. Have a nice evening.

12 MR. BLECHMAN: Thank you, Your Honor.

13 (Court adjourned.)

14

C E R T I F I C A T E

15

16 I certify that the foregoing is a correct transcript
17 from the record of the proceedings in the above-entitled
18 matter.

19

20

21 _____
Kathleen Feldman, CSR, CRR, RPR, CM
22 Official Court Reporter

23

24 Date: _____

25

<div>\$</div>	<div>1.48 [1] - 130:19 10 [12] - 67:20, 82:11, 82:19, 84:14, 87:5, 91:5, 91:7, 92:6, 99:2, 102:21, 146:24, 220:16 100 [8] - 11:15, 27:11, 90:13, 90:20, 90:24, 92:3, 164:23, 193:23 100% [38] - 40:7, 40:11, 40:22, 40:24, 71:10, 71:14, 75:16, 75:22, 76:2, 76:12, 77:17, 77:20, 77:22, 78:18, 78:20, 125:4, 161:23, 162:5, 162:8, 162:24, 163:5, 163:15, 163:16, 164:24, 165:13, 166:16, 192:1, 192:7, 192:13, 192:19, 193:8, 194:4, 194:16, 195:14, 196:6, 196:21, 196:25, 197:2 100,000 [1] - 219:17 101 [1] - 169:11 11 [4] - 87:17, 88:14, 97:4, 97:13 1100 [1] - 2:5 114 [2] - 162:2, 194:11 115 [2] - 215:12, 215:17 12 [7] - 67:24, 100:25, 101:8, 102:13, 102:16, 206:15, 227:1 12-minute [1] - 67:20 1234 [1] - 1:22 124 [1] - 164:18 13 [4] - 89:22, 90:2, 91:16, 110:20 13,000 [1] - 220:16 14 [5] - 93:10, 93:12, 93:18, 95:13, 166:4 15 [4] - 67:24, 95:13, 149:17, 149:24 151 [3] - 99:23, 100:2, 100:3 15219 [1] - 2:18 157 [3] - 177:20, 178:1, 178:3 16 [4] - 95:13, 111:3, 213:8, 213:19 17 [10] - 95:13, 96:4, 97:5, 97:6, 98:8, 99:9, 111:2, 214:22, 214:24, 215:5 17-hour [1] - 213:8</div>	<div>175-14 [1] - 166:4 177 [4] - 177:11, 177:17, 177:25, 178:3 18 [7] - 1:16, 99:22, 100:12, 100:18, 110:24, 212:6, 217:12 180,000 [1] - 220:18 186 [2] - 176:23, 177:2 18th [1] - 3:6 19 [1] - 101:16 19103 [1] - 3:7 19106 [1] - 1:23 1980 [1] - 7:13 1981 [1] - 7:14 1983 [2] - 7:15, 19:7 1986 [2] - 205:1, 221:24 1988 [1] - 207:7 1989 [1] - 207:10 1990 [11] - 33:16, 33:22, 36:11, 57:19, 60:2, 62:12, 82:15, 84:15, 93:14, 94:24, 138:15 1990s [7] - 71:3, 132:14, 149:13, 151:18, 151:19, 222:3, 222:22 1996 [1] - 208:17 1997 [1] - 6:21 1st [1] - 166:21</div>	<div>173:17, 173:19, 174:1, 174:12, 176:1, 176:4, 177:18, 177:25, 178:3, 219:20 2000 [5] - 30:5, 49:12, 114:25, 149:18, 149:24 20006 [1] - 3:12 2000s [5] - 71:4, 222:3, 222:21, 223:15, 224:3 2002 [54] - 1:4, 34:13, 40:1, 42:2, 42:5, 51:7, 53:21, 60:16, 61:3, 65:12, 75:13, 82:1, 83:2, 83:6, 83:14, 83:16, 84:8, 84:15, 84:16, 85:1, 85:9, 85:15, 85:18, 85:22, 86:9, 86:15, 86:18, 86:20, 88:2, 88:5, 88:8, 88:20, 100:14, 101:20, 114:25, 134:19, 151:8, 151:12, 152:4, 152:18, 152:22, 160:25, 161:14, 161:17, 165:12, 166:5, 166:10, 166:14, 182:13, 182:18, 183:9, 184:6, 184:15, 186:6 2003 [15] - 34:13, 38:10, 43:13, 60:17, 60:23, 86:15, 115:1, 126:22, 139:14, 164:10, 164:21, 165:3, 165:13, 165:21, 166:15 2004 [18] - 38:10, 53:13, 53:21, 65:13, 65:23, 75:14, 86:9, 88:8, 124:25, 125:1, 125:2, 174:13, 174:21, 174:23, 193:14, 201:2, 208:17 2005 [24] - 53:13, 54:3, 65:23, 66:2, 71:25, 75:14, 88:9, 139:14, 153:3, 153:14, 166:22, 167:12, 167:13, 167:20, 168:6, 168:9, 168:14, 168:18, 169:6, 169:13, 170:21, 174:23, 197:8, 197:12 2005-ish [1] - 166:20 2006 [6] - 88:9,</div>	<div>128:10, 129:22, 130:14, 131:8, 131:12 2007 [9] - 54:3, 54:16, 66:3, 66:6, 102:21, 130:16, 130:19, 130:22, 130:25 2008 [7] - 54:17, 54:20, 66:7, 66:10, 128:11, 131:3, 174:23 201 [1] - 2:5 2010 [3] - 21:7, 29:25, 145:3 2010-ish [1] - 9:3 2012 [20] - 33:16, 33:22, 34:12, 36:12, 51:6, 54:20, 57:19, 60:2, 60:22, 62:12, 66:11, 82:16, 83:6, 93:14, 115:1, 138:15, 208:17, 219:25, 220:12, 220:17 2013 [1] - 207:22 2014 [1] - 30:8 2014-ish [1] - 145:16 2015 [4] - 30:8, 145:16, 157:18, 208:17 2019 [1] - 1:9 2020 [1] - 3:11 21 [4] - 211:10, 217:15, 219:20 215 [1] - 1:23 22 [4] - 105:18, 105:19, 105:20, 105:22 230 [3] - 45:24, 45:25, 46:1 24 [3] - 109:19, 110:4, 110:8 25 [4] - 100:14, 110:1, 176:17, 219:13 26 [3] - 110:21, 112:1, 219:14 26.4 [2] - 56:20, 135:15 27 [3] - 123:10, 123:12, 199:7 28 [9] - 118:5, 118:12, 143:17, 143:24, 199:8, 199:9, 199:11, 199:22, 199:23 289 [4] - 157:25, 190:20, 190:22, 190:24 29 [8] - 101:20, 122:6, 123:24, 124:4, 199:9, 199:13, 199:23 2900 [1] - 3:15</div>
<div>'</div>	<div>'50s [1] - 220:6 '64 [1] - 220:6 '80s [1] - 222:13 '86 [2] - 205:5, 222:6 '90s [5] - 222:13, 222:21, 223:15, 223:24, 224:2</div>			
<div>0</div>	<div>0.056 [1] - 66:21 0.2 [2] - 53:7, 75:20 0.6 [1] - 75:20 08 [3] - 100:25, 101:9, 102:13 08-MDL-02002 [1] - 1:4</div>			
<div>1</div>	<div>1 [48] - 40:1, 40:5, 42:2, 51:11, 51:14, 51:15, 53:21, 53:23, 53:24, 55:14, 65:12, 72:14, 75:13, 90:18, 91:3, 91:6, 94:20, 94:21, 96:22, 96:24, 97:17, 97:19, 97:20, 99:2, 99:14, 102:16, 103:7, 108:10, 141:6, 152:20, 155:13, 155:19, 158:1, 158:6, 161:7, 161:8, 162:4, 163:15, 179:14, 181:15, 191:15, 191:20, 195:2, 195:15, 196:22, 214:6, 214:7 1,000 [2] - 145:23, 208:20 1.3 [2] - 53:12, 53:19 1.35 [1] - 130:16</div>			

293 [3] - 163:8,
163:9, 196:16
2:15 [2] - 141:6,
141:8

3

3 [14] - 39:17, 39:20,
41:8, 51:11, 51:13,
54:2, 54:11, 66:2,
69:22, 70:4, 155:13,
155:22
3.3 [1] - 54:12
3.5 [1] - 117:21
3.61 [1] - 131:1
30 [6] - 15:13, 46:1,
103:8, 124:10,
124:11, 223:5
3000 [1] - 3:6
301 [1] - 2:17
31 [5] - 111:3,
125:14, 200:23,
200:24
32 [2] - 126:19,
126:21
3200 [1] - 2:12
33 [4] - 128:7, 128:9,
129:14, 131:8
33131 [1] - 2:6
34 [3] - 111:2, 137:4,
137:10
35 [6] - 138:6, 138:7,
138:8, 139:5, 140:5,
140:17
35th [1] - 2:17
36 [5] - 138:8,
138:17, 138:21,
140:14, 140:16
360 [1] - 115:5
3600 [1] - 2:21

4

4 [16] - 41:9, 42:17,
42:20, 43:8, 43:20,
54:13, 54:16, 66:6,
66:18, 66:22, 155:13,
155:22, 163:11,
195:18, 196:20,
219:14
40 [7] - 174:7,
174:11, 175:10,
175:11, 175:13,
176:1, 215:18
40-plus [1] - 176:3
40.3 [1] - 174:11
408 [1] - 102:22
41 [3] - 3:15, 128:23,
129:24

42 [5] - 174:7,
174:11, 175:10,
175:14, 176:2
42.8 [1] - 174:2
43 [1] - 175:14
43215 [1] - 3:16
45 [1] - 175:13
47 [1] - 131:4
48 [5] - 159:17,
159:22, 160:1, 160:5,
160:14
4:30-ish [1] - 225:10
4:45 [1] - 225:10

5

5 [15] - 4:10, 40:14,
41:1, 41:9, 52:5,
52:22, 54:19, 54:25,
66:10, 67:5, 155:13,
155:22, 169:13,
195:18
5.2 [1] - 66:13
5.5 [4] - 26:4, 66:9,
66:22, 89:14
5.72 [1] - 130:23
50 [2] - 11:15, 227:23
50-foot [1] - 219:3
50/50 [1] - 16:25
500 [3] - 147:9, 188:5
52 [1] - 110:25
54.1 [1] - 173:25
55 [1] - 2:12
56 [2] - 53:10, 160:7
58 [1] - 130:25

6

6 [6] - 57:15, 58:5,
66:1, 128:22, 146:1,
196:22
6.1 [1] - 130:11
6.5 [1] - 54:14
6.7 [1] - 54:22
600 [3] - 3:12, 145:9,
219:3
601 [1] - 1:22
60603 [2] - 2:13, 2:22
63 [2] - 53:11, 139:1
650 [1] - 146:1
68 [11] - 93:19,
93:21, 93:23, 93:25,
94:22, 95:15, 95:20,
95:21, 110:12,
176:14, 176:16
6:15 [1] - 225:10
6:30-ish [1] - 4:11

7

7 [11] - 59:23, 59:24,
123:3, 124:9, 146:1,
174:13, 176:15,
176:19, 176:21,
176:22, 201:2
70 [2] - 15:12, 210:23
771 [1] - 10:3
779-5578 [1] - 1:23

8

8 [5] - 2:21, 62:7,
62:9, 102:15, 190:25
8-inch [1] - 160:15
8.69 [1] - 130:17
80 [1] - 215:11
83 [1] - 124:18
83.6 [2] - 125:2,
125:10
85 [9] - 125:20,
174:5, 174:21, 175:8,
175:13, 175:25,
193:17, 201:2

9

9 [8] - 62:18, 65:11,
69:14, 74:22, 75:3,
75:12, 191:14, 191:17
9.53 [3] - 97:20,
97:22, 130:20
90 [4] - 80:20, 95:9,
111:23, 201:4
91 [1] - 130:22
95 [3] - 86:4, 174:24,
191:21
98 [1] - 177:6
99 [21] - 52:20,
54:25, 55:4, 55:15,
55:18, 61:16, 63:22,
67:8, 67:16, 72:11,
75:19, 86:5, 90:20,
90:24, 92:4, 106:2,
135:4, 155:21,
185:24, 188:14,
191:21
99.1 [1] - 65:1
9:30 [1] - 224:23

A

A&M [3] - 6:24, 7:13,
8:3
A&P [4] - 118:13,
118:20, 118:24

ABC [1] - 189:18
abides [1] - 188:23
ability [3] - 193:9,
196:12, 209:12
able [14] - 22:22,
29:16, 77:12, 83:23,
127:23, 149:10,
154:2, 155:1, 183:4,
217:11, 221:2,
223:22, 226:17, 227:8
above-entitled [1] -
228:17
abroad [1] - 105:23
absence [1] - 72:6
absent [1] - 126:6
absolutely [12] - 8:8,
15:12, 26:20, 39:16,
41:17, 52:18, 61:24,
74:2, 140:9, 170:22,
192:16, 194:1
absorbed [3] - 184:4,
185:1, 185:3
absorbs [1] - 183:25
academic [5] - 8:17,
11:1, 11:2, 135:10,
183:1
Academic [3] -
15:17, 16:6, 16:8
academics [2] -
10:20, 16:11
ACC [2] - 125:21,
196:15
accepted [4] - 9:15,
11:5, 49:1, 74:1
Accepted [1] - 49:1
access [4] - 24:22,
30:3, 197:20
accommodate [1] -
50:7
Accord [2] - 179:2,
179:3
according [2] - 46:2,
156:12
account [16] - 5:4,
11:10, 45:17, 57:4,
59:14, 62:3, 64:19,
84:6, 111:17, 111:19,
116:11, 116:15,
141:7, 183:8, 185:16
accounted [2] - 43:1,
67:3
accounting [1] -
183:21
accounts [1] - 39:5
accuracy [1] - 9:25
accurate [1] - 225:25
acknowledged [1] -
165:7
acquire [1] - 29:15
acquisition [1] -

29:18
Acre [48] - 3:16,
28:21, 28:23, 29:1,
29:10, 57:5, 57:6,
109:12, 111:16,
112:4, 113:8, 115:17,
116:13, 117:17,
120:3, 120:8, 121:6,
122:22, 123:13,
123:20, 140:6,
143:23, 144:24,
147:14, 189:16,
190:6, 190:12,
197:23, 198:2, 198:7,
198:9, 203:14,
204:13, 205:5, 205:9,
208:14, 208:16,
209:7, 209:21,
212:11, 213:25,
215:23, 218:19,
219:22, 219:23,
220:20, 226:10,
227:22
Acre's [8] - 28:24,
29:14, 139:2, 140:13,
197:19, 198:3, 218:9,
219:11
Acre [1] - 118:11
acronym [3] - 74:19,
81:11, 107:1
acronyms [1] - 36:7
Act [1] - 15:22
act [1] - 132:23
acting [3] - 113:22,
129:8, 206:25
actions [5] - 56:13,
84:23, 85:6, 125:5,
131:22
activities [1] -
170:11
activity [6] - 49:1,
132:2, 150:11,
184:24, 185:2, 225:12
actual [25] - 47:3,
58:9, 67:3, 82:21,
82:23, 84:10, 87:6,
88:20, 113:11,
113:15, 113:16,
114:23, 115:20,
136:18, 137:20,
138:14, 139:4,
139:11, 139:12,
139:20, 139:24,
160:10, 213:25
Actual [2] - 57:18,
82:14
ad [1] - 70:13
add [6] - 184:11,
186:10, 194:23,
215:18, 218:8, 223:17

added [1] - 63:10
addition [4] - 37:1, 37:4, 71:8, 84:4
additional [5] - 71:20, 80:18, 102:14, 170:13, 192:24
address [2] - 145:20, 221:2
addressed [1] - 136:3
addresses [1] - 221:6
addressing [2] - 71:19, 134:6
adhere [1] - 29:16
adjourned [1] - 228:13
adjust [1] - 135:3
adjusted [2] - 63:17, 140:3
administered [1] - 22:25
administrative [3] - 206:3, 206:21, 207:5
admitted [1] - 142:17
adopted [1] - 159:6
adoption [1] - 77:17
advantage [1] - 46:23
advertise [1] - 143:5
advertised [2] - 153:3, 153:14
advertising [2] - 11:25, 78:11
advised [1] - 142:8
Advisory [3] - 171:6, 171:9
advisory [1] - 16:10
advocacy [1] - 225:6
affected [1] - 223:18
affiliate [1] - 8:17
affiliated [1] - 9:1
afternoon [6] - 141:9, 144:22, 182:4, 182:5, 204:10, 204:11
afternoons [1] - 4:7
age [8] - 210:23, 212:25, 213:20, 214:12, 215:11, 215:17, 216:1, 217:23
agencies [2] - 9:5, 15:16
agency [2] - 15:25, 18:11
aggregate [2] - 156:2, 156:13
agnostic [4] - 36:19, 46:4, 86:25, 87:1
ago [3] - 177:15, 177:16, 184:10
agree [8] - 18:8, 136:6, 137:11, 157:8, 160:13, 175:15, 179:4, 188:12
agreed [4] - 68:12, 68:14, 68:20, 200:5
agreeing [2] - 188:22, 193:5
agreement [4] - 126:6, 126:7, 150:6, 227:10
agricultural [1] - 17:20
agriculture [1] - 223:8
Agriculture [1] - 36:9
agronomic [1] - 223:13
ahead [8] - 105:25, 113:3, 114:2, 144:19, 152:6, 200:20, 210:3, 224:21
AHERN [2] - 2:20, 2:20
aid [3] - 90:2, 112:2, 142:14
aids [1] - 30:15
air [2] - 41:25, 206:9
airline [1] - 132:20
airlines [2] - 38:24, 39:1
ALAN [1] - 2:3
Albertsons [5] - 2:7, 95:7, 118:13, 119:5, 119:8
aLEXANDER [1] - 3:4
Allan [1] - 101:1
allegation [2] - 149:17, 156:14
allegations [10] - 22:8, 22:12, 22:18, 32:5, 32:6, 81:17, 127:10, 131:23, 148:16, 149:19
alleged [73] - 17:23, 23:16, 24:3, 26:3, 26:16, 28:6, 28:15, 28:22, 31:16, 31:19, 32:5, 51:3, 57:11, 57:25, 58:21, 69:25, 71:17, 81:8, 84:24, 85:6, 85:10, 96:7, 97:23, 98:19, 109:13, 113:9, 115:15, 119:1, 119:8, 119:14, 120:4, 120:9, 120:17, 120:18, 121:11, 121:18, 121:24, 126:14, 127:11, 131:23, 132:1, 134:21, 139:12, 139:17, 140:6, 147:23, 148:4, 149:23, 152:3, 157:1, 162:6, 167:10, 172:25, 173:6, 173:24, 175:9, 175:12, 177:18, 177:21, 180:8, 183:2, 183:5, 184:24, 189:9, 193:24, 198:1, 198:22, 199:2, 199:15, 199:25, 201:6, 201:14
Alleged [1] - 93:13
aLLEN [1] - 3:11
allow [7] - 36:2, 51:21, 56:17, 77:14, 89:7, 96:6, 197:21
allowed [10] - 37:11, 61:13, 131:13, 153:7, 154:16, 162:15, 181:8, 183:14, 212:10, 219:5
allowing [5] - 8:23, 45:4, 48:14, 183:20, 186:22
allows [12] - 43:17, 45:6, 48:9, 56:3, 56:4, 84:1, 93:3, 103:25, 162:8, 183:23, 185:19, 186:16
alluded [1] - 185:6
almost [1] - 19:9
alone [4] - 22:2, 98:16, 194:16, 195:11
alternate [1] - 225:18
alternates [2] - 226:25, 227:5
alternative [2] - 19:4, 73:4
alternatively [1] - 90:10
amazing [1] - 124:22
America [4] - 118:21, 118:25, 121:5, 122:20
amount [10] - 106:17, 108:6, 116:8, 117:11, 117:21, 217:3, 217:21, 217:22, 218:5, 218:23
amounts [1] - 115:20
analogous [1] - 39:23
analogy [1] - 50:15
analyses [3] - 71:21, 92:18, 136:16
analysis [80] - 13:22, 14:24, 26:17, 28:1, 30:22, 30:24, 30:25, 36:24, 37:1, 37:2, 37:3, 37:4, 41:19, 55:8, 59:15, 61:19, 61:21, 62:12, 79:7, 81:4, 81:5, 81:7, 81:20, 82:6, 82:9, 89:13, 89:17, 92:16, 92:20, 92:25, 93:2, 103:16, 106:12, 106:22, 107:1, 107:3, 107:13, 108:22, 115:4, 115:18, 116:13, 117:10, 117:13, 117:15, 118:22, 124:7, 126:12, 127:14, 127:17, 128:5, 136:14, 136:15, 137:22, 139:8, 139:23, 140:4, 140:14, 150:14, 150:17, 151:3, 151:6, 151:18, 151:21, 151:25, 152:19, 155:25, 156:22, 157:5, 166:25, 167:18, 171:16, 172:22, 172:24, 187:14, 189:21, 192:21, 197:15, 198:4
Analysis [1] - 105:19
analyze [8] - 16:14, 59:5, 59:13, 104:19, 113:6, 163:12, 198:4
analyzes [1] - 162:4
animal [17] - 21:2, 21:3, 45:12, 64:18, 70:1, 76:24, 77:6, 77:7, 77:8, 78:5, 79:3, 79:5, 80:4, 125:16, 183:22, 205:2
Animal [14] - 76:18, 76:21, 77:25, 78:1, 78:3, 78:6, 100:13, 101:3, 153:2, 153:13, 153:17, 161:20, 192:5, 192:8
animals [1] - 223:8
announced [1] - 148:24
annual [4] - 51:10, 126:23, 165:19, 165:20
answer [27] - 19:14, 19:19, 35:1, 39:21, 46:6, 47:11, 55:14, 67:5, 70:15, 74:8, 75:24, 76:6, 153:4, 153:7, 153:8, 162:15, 163:7, 168:23, 169:15, 169:23, 170:3, 181:9, 182:16, 184:21, 192:18, 200:1, 201:15
answered [5] - 158:9, 158:22, 162:7, 163:14, 168:16
answering [6] - 156:10, 173:3, 186:5, 189:8, 194:18, 197:4
anticompetitive [15] - 15:2, 27:19, 31:16, 31:19, 51:2, 57:8, 75:23, 76:8, 77:16, 78:11, 85:7, 89:13, 107:11, 131:22, 132:2
ANTITRUST [1] - 1:4
antitrust [13] - 7:21, 14:18, 16:18, 26:9, 32:4, 56:11, 104:3, 147:18, 150:7, 156:10, 173:4, 175:20, 189:8
anyway [3] - 27:8, 160:3, 227:17
apart [1] - 162:5
apologies [2] - 121:22, 203:8
apologize [9] - 41:10, 58:23, 66:19, 73:6, 99:25, 107:19, 122:18, 176:18, 194:20
appear [1] - 122:3
aPEEArANCES [1] - 3:1
APPEArANCES [1] - 2:1
appendix [1] - 113:14
applied [13] - 7:22, 18:21, 19:2, 19:3, 39:21, 40:3, 40:8, 40:16, 40:17, 42:2, 54:6, 180:4, 209:4
apply [2] - 74:9, 141:10
applying [1] - 223:12
appointed [1] - 15:17
approach [8] - 9:7, 30:18, 36:1, 48:11, 85:12, 139:22, 157:10, 185:16
approached [4] - 17:12, 17:13, 17:15, 18:4
approaches [1] - 75:11
appropriate [1] -

135:2
approved [1] -
223:13
approximate [1] -
30:7
April [2] - 89:8,
130:22
arbitrary [1] - 140:3
Arch [1] - 3:6
area [12] - 19:6,
27:19, 51:9, 86:12,
104:24, 106:13,
106:19, 134:5, 217:4,
219:2, 223:8, 224:8
areas [1] - 204:19
argues [1] - 108:5
arguing [1] - 185:7
arguments [2] -
15:7, 15:8
arithmetic [1] -
147:10
Arizona [2] - 213:9,
214:3
ARLENE [1] - 3:14
Armstrong [1] -
171:3
ARNOLD [1] - 2:3
arrive [2] - 47:7,
109:3
arrived [1] - 134:3
art [1] - 16:13
ARTHUR [2] - 3:9,
3:13
article [7] - 10:19,
13:15, 101:6, 101:7,
102:4, 102:21, 103:7
articles [4] - 10:17,
11:12, 11:19, 12:24
articulate [1] - 227:9
artifact [2] - 47:23,
55:20
aside [2] - 163:13,
198:21
aspects [4] - 70:9,
70:16, 70:17, 70:22
asserting [1] - 161:8
assertions [1] -
13:23
assess [3] - 13:20,
14:23, 124:7
assessing [3] - 57:9,
100:16, 102:25
assessment [2] -
11:8, 13:18
assignment [3] -
21:4, 25:17, 144:7
assignments [1] -
144:10
assist [1] - 8:23
assistant [4] - 9:23,
206:3, 206:21, 207:6
associated [2] -
128:20, 167:7
ASSOCIATES [1] -
2:20
Associates [1] - 8:20
association [7] -
18:1, 126:9, 148:17,
150:4, 150:21, 156:15
Association [1] -
175:17
Association's [1] -
190:10
assume [6] - 96:17,
134:19, 142:9,
186:14, 225:16, 228:2
assumed [1] -
122:12
assumes [1] - 47:2
assuming [7] - 47:5,
70:10, 83:24, 96:9,
96:11, 130:6, 130:10
assumption [4] -
47:24, 57:2, 128:2,
169:16
assumptions [1] -
183:11
asterisk [1] - 40:6
Atlantic [1] - 2:8
attack [1] - 225:18
attempt [1] - 190:10
attempted [2] -
81:18, 157:24
attempting [6] -
127:16, 132:7,
151:16, 183:8, 189:6,
198:2
attention [4] -
169:10, 171:11,
190:24, 225:14
Attributable [1] -
93:13
attributed [1] - 58:12
audit [5] - 127:5,
165:19, 165:20,
166:6, 166:9
audited [1] - 165:18
audits [9] - 126:17,
126:23, 157:2,
165:14, 165:21,
166:15, 187:23, 223:3
August [15] - 40:1,
42:2, 42:5, 53:21,
54:3, 54:20, 65:12,
66:2, 66:10, 75:13,
151:8, 151:12,
152:21, 160:25,
161:14
author [2] - 13:24,
13:25
authored [2] - 12:22,
101:1
authored/co [1] -
12:22
authored/co-
authored [1] - 12:22
authority [1] - 16:15
auto [1] - 186:22
auto-correlated [1] -
186:22
automobiles [1] -
107:8
autoregressive [3] -
81:12, 81:13, 81:14
availability [1] - 49:5
available [6] - 24:24,
93:5, 93:20, 94:23,
94:25, 196:11
Avenue [1] - 2:21
average [9] - 40:19,
97:1, 97:4, 97:18,
98:17, 99:9, 99:13,
146:25, 159:14
averaging [3] -
14:19, 80:9, 80:10
aviary [3] - 218:22,
220:18, 221:5
aware [7] - 18:13,
149:16, 149:22,
159:14, 164:10,
170:23, 171:8
axis [3] - 33:21,
33:23, 90:20

B

B-A-Y-E [1] - 5:25
baby [6] - 205:13,
208:6, 209:15,
210:18, 213:11,
217:23
bachelor's [1] -
205:2
backfill [4] - 168:17,
169:6, 169:14, 169:16
backfilled [13] -
167:23, 168:1, 168:6,
168:9, 168:10,
168:14, 168:19,
168:20, 169:1, 169:9,
170:20, 197:7, 197:12
backfilling [6] -
32:10, 41:6, 41:7,
50:24, 69:16, 69:22,
69:25, 70:2, 70:6,
70:11, 70:14, 70:21,
71:9, 71:12, 71:14,
71:15, 71:19, 71:24,
71:25, 76:2, 76:5,
79:1, 79:7, 79:14,
79:23, 80:13, 80:16,
80:22, 98:7, 98:13,
98:16, 110:15,
110:22, 163:13,
166:25, 167:3,
180:20, 181:16,
181:17, 181:18, 192:1
bands [1] - 85:24
banking [1] - 12:23
BARNES [1] - 3:10
Barry [32] - 24:19,
92:22, 94:23, 95:3,
95:10, 111:23,
111:24, 113:10,
114:12, 114:24,
115:8, 115:9, 115:12,
115:14, 115:20,
116:1, 116:3, 116:4,
116:7, 116:8, 117:11,
123:18, 123:23,
136:3, 136:4, 136:9,
136:10, 138:14,
138:18, 171:23, 180:5
based [55] - 11:6,
15:8, 29:7, 34:15,
34:23, 39:3, 48:8,
55:19, 57:2, 61:15,
65:3, 73:25, 77:10,
86:7, 88:2, 88:4,
88:10, 89:12, 93:4,
93:20, 98:2, 98:11,
110:11, 111:5,
111:17, 113:12,
113:18, 113:19,
113:23, 114:17,
115:10, 116:4, 116:6,
121:4, 123:2, 125:18,
129:1, 134:9, 134:20,
135:9, 136:2, 136:18,
139:8, 139:23,
149:10, 151:13,
152:2, 152:8, 157:5,
190:18, 192:2, 193:3,
211:7, 226:14
bashful [1] - 12:11
batching [1] - 216:6
Baye [85] - 4:16,
5:11, 5:25, 6:1, 6:16,
6:19, 7:4, 7:23, 9:11,
9:21, 10:13, 11:11,
12:12, 16:17, 18:11,
18:22, 20:1, 20:12,
20:19, 21:5, 22:7,
25:16, 26:24, 30:21,
31:12, 33:5, 33:15,
42:20, 51:23, 57:9,
59:23, 64:2, 66:14,
69:10, 75:22, 86:17,
87:18, 93:12, 100:9,
100:12, 101:18,
102:20, 103:16,
105:20, 108:16,
109:19, 112:13,
112:18, 113:6,
113:25, 118:7, 119:5,
120:20, 122:9, 123:1,
125:23, 128:9, 131:7,
140:19, 143:17,
143:24, 144:22,
153:4, 153:9, 155:9,
157:13, 161:10,
162:2, 162:11,
169:10, 170:17,
171:12, 178:1, 181:8,
181:11, 182:4, 182:7,
182:12, 189:20,
190:22, 198:4,
200:10, 200:23, 202:4
BAYE [1] - 6:11
Baye's [1] - 188:13
Baylson [1] - 143:2
beak [2] - 205:13,
213:1
beautiful [1] - 83:10

became [3] - 106:19, 206:3, 220:6
become [3] - 207:5, 210:21, 216:1
becomes [2] - 5:3, 193:9
becoming [1] - 214:25
BEFORE [1] - 1:12
began [4] - 17:25, 37:7, 149:20, 152:4
begin [5] - 17:25, 69:20, 134:8, 139:19, 212:8
beginning [4] - 60:10, 86:9, 196:22, 225:15
begins [2] - 83:1, 195:3
behalf [3] - 20:13, 181:23, 202:3
behavior [8] - 8:12, 8:13, 12:6, 12:7, 38:5, 71:1, 104:9, 221:6
behind [2] - 73:7, 75:1
beliefs [1] - 17:19
BELL [1] - 2:21
Bell [8] - 45:20, 46:2, 56:19, 57:1, 71:2, 135:14, 159:13, 159:25
bell [1] - 170:24
below [3] - 83:3, 85:15, 118:16
benefit [1] - 122:18
benefits [2] - 79:14, 188:19
Berlin [1] - 8:5
best [5] - 12:21, 23:24, 55:7, 157:24, 188:19
bet [1] - 218:12
better [5] - 18:15, 22:2, 37:9, 182:22, 221:6
between [35] - 11:15, 18:14, 18:22, 19:4, 37:18, 46:17, 48:15, 58:19, 70:4, 73:14, 84:14, 85:17, 85:21, 89:14, 100:25, 103:21, 110:20, 110:24, 113:10, 113:11, 115:5, 115:14, 115:19, 116:2, 123:17, 123:18, 133:16, 139:14, 148:24, 173:9, 218:24, 222:3, 222:21, 223:14, 224:2
beyond [1] - 88:5
bicycle [1] - 188:7
big [8] - 35:19, 77:25, 94:17, 108:3, 140:12, 188:7, 208:2
bigger [5] - 56:24, 77:16, 135:19, 158:25
biggest [5] - 160:16, 161:9, 207:25, 221:1
bill [2] - 21:15, 21:16
billing [2] - 146:7, 146:10
billings [1] - 146:24
billion [1] - 117:21
bills [2] - 146:20, 146:22
bird [5] - 215:9, 218:25, 220:16, 221:6, 222:14
birds [19] - 79:23, 79:25, 80:1, 135:16, 135:21, 135:23, 204:19, 205:13, 206:8, 206:11, 217:3, 220:19, 221:8, 221:14, 221:15, 221:20, 222:6, 222:7, 224:10
Biscayne [1] - 2:5
bit [34] - 5:14, 7:2, 7:3, 27:2, 29:11, 38:25, 40:10, 44:5, 45:15, 74:7, 85:22, 104:6, 104:8, 104:10, 116:21, 116:23, 123:21, 141:10, 142:10, 150:22, 161:5, 166:17, 204:16, 208:12, 213:10, 218:16, 221:7, 222:6, 222:13, 222:15, 223:16, 224:17, 224:21
bite [1] - 124:2
bits [1] - 4:8
BJORK [1] - 2:12
Black [1] - 12:17
Blechman [8] - 5:9, 6:9, 67:19, 69:7, 143:12, 144:15, 165:15, 179:23
BLECHMAN [119] - 2:3, 4:3, 4:13, 4:16, 5:10, 6:10, 6:15, 9:7, 9:9, 9:10, 9:18, 9:20, 10:2, 10:7, 10:9, 10:12, 20:11, 20:21, 20:22, 25:10, 25:14, 25:15, 30:18, 30:20, 33:1, 33:4, 33:10, 33:13, 33:14, 39:17, 39:19, 42:17, 42:19, 62:7, 62:8, 62:17, 62:19, 67:22, 68:5, 68:10, 68:19, 68:22, 68:25, 69:8, 69:9, 93:10, 93:11, 99:22, 100:3, 100:7, 100:8, 101:16, 101:17, 102:18, 102:19, 103:12, 103:14, 103:15, 113:1, 113:4, 113:5, 114:3, 114:7, 114:20, 116:20, 116:24, 117:2, 117:6, 117:8, 117:9, 118:4, 118:6, 122:5, 122:7, 123:10, 123:11, 124:3, 126:19, 126:20, 128:7, 128:8, 140:24, 141:15, 141:22, 142:1, 142:6, 142:15, 142:18, 142:21, 143:14, 143:15, 143:18, 143:20, 144:12, 144:16, 153:6, 154:12, 154:15, 162:14, 162:18, 162:22, 169:22, 169:24, 181:8, 182:1, 182:3, 199:6, 199:12, 200:16, 201:22, 202:3, 202:6, 202:20, 203:10, 225:20, 227:11, 227:19, 228:7, 228:12
blind [2] - 58:7, 83:2
block [1] - 15:1
Bloomington [2] - 188:4, 188:8
blow [3] - 62:17, 75:1, 166:6
blown [2] - 63:6, 63:12
blue [13] - 34:2, 35:2, 60:5, 83:3, 85:14, 85:18, 85:21, 86:10, 86:11, 88:10, 92:1, 139:11, 139:20
Board [2] - 208:15, 208:16
book [2] - 12:16, 12:19
books [5] - 12:9, 12:13, 12:15, 12:25, 182:11
boom [1] - 194:9
boots [1] - 141:8
born [1] - 40:3
BORUCHOWITZ [1] - 3:14
bottom [5] - 88:14, 90:20, 91:19, 91:20, 94:11
bought [9] - 111:15, 115:16, 118:20, 120:7, 120:22, 121:12, 121:17, 121:25, 140:6
Boulevard [1] - 2:5
box [6] - 63:5, 63:8, 67:7, 69:15, 71:23, 72:10
boxed [1] - 213:2
boxes [2] - 62:15, 63:11
brain [1] - 225:11
BRANDON [1] - 2:5
breach [1] - 192:12
break [14] - 67:21, 67:24, 68:1, 68:4, 91:13, 96:14, 99:1, 140:25, 141:5, 142:3, 202:9, 202:13, 202:18, 224:17
breed [3] - 222:8, 222:14, 222:18
breeder [16] - 204:20, 205:12, 207:11, 207:13, 207:17, 207:21, 210:14, 210:21, 210:22, 210:25, 211:14, 212:11, 212:20, 214:14, 216:6, 217:20
breeders [1] - 217:21
breeding [1] - 214:10
BRIAN [1] - 2:16
brief [2] - 227:25, 228:5
briefly [4] - 6:16, 8:9, 89:20, 204:24
briefs [1] - 228:4
bring [7] - 4:15, 45:14, 99:22, 142:20, 166:1, 199:6, 210:9
bringing [1] - 203:8
Bros [2] - 121:17, 122:23
brought [2] - 199:10, 211:18
Brown [2] - 94:2, 94:6
brown [1] - 110:19
bubble [8] - 27:7, 27:9, 27:11, 27:12, 92:10, 92:11, 179:10, 179:14
bucket [1] - 29:11
budget [2] - 27:6, 92:9
build [4] - 38:19, 44:24, 185:11, 222:23
bullet [1] - 25:25
bunch [6] - 17:22, 27:2, 38:10, 51:9, 80:10, 94:25
Bureau [7] - 15:3, 15:18, 15:19, 15:20, 16:9, 16:10, 74:4
Burke [1] - 206:16
business [4] - 10:24, 78:21, 193:11, 221:4
Business [2] - 7:9, 102:20
but-for [22] - 26:9, 26:15, 36:24, 51:5, 51:12, 51:20, 51:21, 57:23, 58:15, 58:16, 82:20, 82:21, 87:6, 139:4, 139:8, 139:14, 139:21, 139:25, 140:8, 140:9, 156:20, 172:22
But-For [2] - 57:19, 82:15
Butt [2] - 2:8, 119:17
buy [16] - 35:16, 76:17, 76:21, 77:7, 77:14, 78:8, 92:2, 92:3, 92:4, 196:10, 209:13, 209:15, 209:16, 210:18, 217:23, 222:7
buyer [1] - 78:12
buyers [3] - 78:6, 78:15, 196:8
buying [5] - 27:3, 35:15, 78:15, 210:19, 213:12
buys [1] - 193:21
BY [56] - 2:10, 2:16, 2:20, 3:3, 3:10, 3:14, 6:15, 9:10, 9:20, 10:12, 20:22, 25:15, 30:20, 33:4, 33:14, 39:19, 42:19, 62:8, 62:19, 69:9, 93:11, 100:8, 101:17, 102:19, 103:15, 113:5, 114:3, 114:20, 117:9, 118:6, 122:7, 123:11, 124:3, 126:20, 128:8, 143:15, 143:20, 144:21, 153:20, 154:13, 154:23,

155:7, 157:12,
161:13, 162:23,
166:2, 166:8, 170:1,
170:16, 181:5,
181:10, 182:3,
199:12, 200:22,
204:9, 210:11

C

C&S ^[1] - 2:23
C.A.T ^[1] - 1:25
Cactus ^[1] - 214:3
cage ^[81] - 32:2,
32:10, 32:11, 39:24,
40:2, 40:4, 40:9, 42:1,
45:21, 45:23, 50:24,
53:9, 53:10, 53:15,
54:5, 55:23, 56:19,
58:17, 71:5, 71:8,
71:15, 77:9, 80:11,
102:14, 135:23,
152:24, 152:25,
153:12, 155:14,
155:25, 156:5, 157:3,
157:5, 158:4, 158:15,
159:4, 159:15, 160:4,
160:24, 161:1, 161:9,
161:15, 161:18,
161:23, 162:5,
165:12, 166:15,
172:9, 174:24,
180:18, 181:13,
187:15, 191:1, 191:7,
191:24, 194:17,
195:6, 195:11, 214:4,
218:22, 218:24,
218:25, 219:9,
219:10, 219:15,
219:22, 219:23,
219:24, 220:1, 220:2,
220:3, 220:7, 220:8,
220:10, 220:13,
220:19, 220:21,
220:25, 221:2, 221:10
Cage ^[1] - 52:17
cage-free ^[23] - 32:2,
77:9, 172:9, 174:24,
218:22, 218:24,
218:25, 219:9,
219:10, 219:15,
219:22, 219:23,
219:24, 220:1, 220:2,
220:3, 220:7, 220:13,
220:19, 220:21,
220:25, 221:2, 221:10
caged ^[1] - 32:1
cages ^[12] - 59:17,
80:18, 135:17,
135:19, 158:25,

206:8, 208:7, 213:16,
218:21, 219:12,
219:20, 219:24
CAIN ^[1] - 2:16
CAIN-MANNIX ^[1] -
2:16
caked ^[1] - 221:12
Cal ^[10] - 118:20,
118:25, 120:7,
120:14, 120:23,
121:4, 121:12,
121:17, 122:1, 122:19
Cal-Maine ^[10] -
118:20, 118:25,
120:7, 120:14,
120:23, 121:4,
121:12, 121:17,
122:1, 122:19
calculated ^[1] -
111:5
cannot ^[5] - 83:15,
112:14, 112:19,
113:23
capacity ^[7] - 14:4,
17:2, 189:17, 207:18,
216:16, 217:13,
219:13
capacity-wise ^[1] -
219:13
capitalize ^[1] -
170:12
caps ^[1] - 82:15
capture ^[3] - 50:23,
89:1, 183:19
captures ^[3] -
183:21, 183:24,
185:21
capturing ^[2] - 40:9,
50:23
Care ^[11] - 76:21,
77:25, 78:1, 78:3,
78:6, 153:2, 153:13,
153:18, 161:20,
192:5, 192:8
care ^[6] - 76:24,
77:5, 77:7, 78:4,
221:7
cared ^[2] - 76:22,
156:12
career ^[2] - 11:17,
24:16
careful ^[3] - 58:11,
143:6, 158:12
Carolina ^[2] - 213:7,
223:20
cars ^[2] - 178:18
cartel ^[7] - 126:3,
126:8, 170:10, 184:9,
188:21, 189:1, 189:5
cartels ^[1] - 12:5

CARTER ^[1] - 3:11
case ^[93] - 8:24,
11:9, 14:23, 17:6,
17:9, 17:11, 17:16,
17:21, 18:9, 20:13,
21:5, 21:6, 21:11,
21:14, 21:18, 22:9,
22:13, 23:2, 23:14,
24:1, 24:18, 26:20,
27:22, 29:22, 30:9,
31:8, 31:10, 32:6,
32:22, 37:25, 38:1,
38:9, 38:18, 38:20,
41:16, 45:9, 46:3,
47:20, 58:12, 59:6,
64:2, 67:25, 68:16,
73:15, 73:24, 74:16,
76:15, 77:11, 82:1,
85:6, 85:13, 91:2,
92:7, 93:5, 99:15,
105:2, 107:13,
108:14, 109:13,
111:6, 114:15,
115:10, 119:15,
120:10, 120:13,
120:18, 120:22,
121:4, 121:12,
121:19, 121:25,
125:9, 126:9, 126:13,
127:12, 127:23,
128:25, 131:23,
135:11, 147:23,
148:4, 148:16,
156:11, 162:6, 169:2,
172:25, 173:6,
189:23, 199:1,
221:18, 224:20,
226:16
cases ^[2] - 16:18,
128:16
casting ^[1] - 187:9
catastrophic ^[1] -
80:17
catch ^[1] - 41:11
causation ^[1] - 73:22
caused ^[9] - 26:3,
29:13, 31:20, 32:20,
36:14, 36:20, 43:18,
55:23, 200:11
causing ^[1] - 37:9
center ^[1] - 212:9
central ^[1] - 12:5
Centre ^[1] - 2:17
century ^[1] - 188:8
certain ^[9] - 37:12,
150:17, 150:20,
198:14, 216:5,
222:16, 222:22,
223:13
certainly ^[5] - 34:12,

77:13, 132:7, 156:25,
222:5
Certification ^[1] -
22:20
certification ^[3] -
32:8, 78:24, 176:9
Certified ^[46] - 56:2,
76:21, 77:25, 78:1,
78:3, 78:6, 78:13,
124:13, 124:18,
124:23, 125:3, 125:8,
151:4, 151:11,
152:25, 153:2,
153:16, 153:18,
155:15, 156:6,
159:15, 159:23,
160:15, 161:18,
161:20, 164:1,
165:17, 166:14,
173:2, 174:4, 174:20,
174:24, 175:8,
177:11, 180:19,
181:13, 192:6, 192:8,
192:9, 193:10,
193:20, 193:22,
195:16, 196:15, 201:3
certified ^[24] - 77:7,
77:11, 78:16, 78:17,
78:19, 78:22, 154:2,
154:8, 154:25,
164:11, 164:22,
167:22, 167:25,
168:6, 174:3, 175:12,
176:1, 176:3, 177:17,
177:20, 197:11,
197:12, 201:6, 201:13
certify ^[1] - 228:16
CFPB ^[2] - 15:22,
16:12
chairman ^[2] - 16:6,
16:7
Chairman ^[1] - 15:17
challenge ^[2] - 23:3,
25:18
chance ^[3] - 55:19,
55:22, 72:14
change ^[32] - 34:16,
36:13, 36:15, 37:9,
38:5, 38:17, 45:1,
45:5, 49:19, 57:10,
62:23, 71:18, 76:12,
87:2, 90:11, 90:25,
91:10, 96:23, 104:9,
178:14, 178:20,
178:21, 179:1, 179:2,
179:5, 179:13,
179:15, 179:17,
180:2, 180:3, 180:6
changed ^[7] - 34:25,
153:3, 173:1, 222:5,

222:20, 223:14, 224:2
changes ^[29] - 11:23,
27:1, 44:15, 45:11,
49:20, 50:1, 50:14,
57:3, 64:18, 65:16,
66:25, 67:1, 81:22,
87:3, 87:6, 87:10,
90:10, 92:12, 97:14,
111:22, 116:7,
137:24, 139:17,
178:14, 183:21,
183:22
changing ^[1] -
207:25
channel ^[1] - 78:22
channeling ^[1] -
136:23
characterization ^[1]
- 176:7
characterizing ^[1] -
175:19
characters ^[1] -
173:20
charge ^[3] - 8:14,
21:15, 204:15
charged ^[1] - 21:13
charging ^[1] - 21:14
Charm ^[2] - 120:14,
122:19
chart ^[9] - 93:6,
122:3, 122:11,
122:17, 123:6, 140:7,
176:5, 184:4, 198:20
charted ^[1] - 155:12
charts ^[1] - 113:13
cheat ^[2] - 126:6,
170:11
cheated ^[1] - 156:17
cheating ^[3] - 56:22,
187:22, 189:1
check ^[13] - 21:20,
21:21, 21:22, 21:25,
46:25, 71:20, 74:16,
82:3, 197:19, 206:9,
227:8, 227:14
checks ^[2] - 21:23
cheerleading ^[1] -
151:16
Chicago ^[3] - 2:13,
2:22, 12:17
chick ^[2] - 210:3,
210:19
chicken ^[2] - 210:18,
214:25
chickens ^[6] - 80:18,
158:24, 209:12,
216:25, 222:16,
222:23
chicks ^[12] - 205:13,
208:6, 209:15,

211:12, 212:25,
 213:11, 213:14,
 214:5, 216:4, 216:10,
 217:15, 217:23
chief [2] - 13:6,
 15:11
choice [3] - 77:13,
 77:14, 125:7
choices [2] - 77:3,
 222:18
choose [2] - 219:1,
 222:10
chopping [1] -
 181:18
chose [3] - 152:14,
 173:17, 183:13
chosen [2] - 169:6,
 169:14
Christmas [2] - 4:22
circle [1] - 193:1
circled [1] - 97:10
cite [1] - 98:3
claim [1] - 136:24
clarify [3] - 162:21,
 192:22, 195:12
clarifying [1] - 72:17
clarity [1] - 101:21
class [4] - 142:25,
 188:2, 188:10, 188:19
classic [4] - 27:7,
 132:21, 186:13, 188:2
clean [1] - 225:7
clear [10] - 20:23,
 34:6, 35:10, 53:1,
 147:12, 148:19,
 191:23, 201:5,
 213:23, 227:15
clearly [5] - 34:13,
 43:10, 56:18, 136:8,
 158:25
Clerk [1] - 4:1
CLERK [13] - 4:18,
 5:18, 5:22, 68:2, 69:3,
 141:12, 141:19,
 143:8, 202:16,
 202:24, 203:16,
 203:20, 224:24
Cliff [1] - 195:1
close [8] - 30:5,
 69:16, 94:20, 108:5,
 108:8, 178:4, 199:8
closely [1] - 139:23
closer [3] - 145:25,
 146:1, 213:13
closing [1] - 5:4
CM [2] - 1:21, 228:21
co [41] - 13:4, 13:8,
 13:17, 28:21, 56:13,
 100:21, 109:12,
 111:16, 113:8, 115:6,
 115:17, 116:12,
 116:18, 117:12,
 117:16, 117:23,
 118:11, 118:17,
 121:18, 122:12,
 124:4, 140:7, 143:23,
 144:9, 147:23, 148:4,
 167:11, 172:25,
 173:6, 173:10,
 173:14, 175:9,
 175:13, 176:4,
 177:19, 177:21,
 190:1, 190:16,
 198:15, 199:1, 199:24
Co [2] - 2:6, 2:7
co-conspiracy [2] -
 175:13, 177:21
co-conspirator [12] -
 115:6, 116:12,
 116:18, 117:12,
 117:16, 118:11,
 144:9, 147:23, 148:4,
 167:11, 173:10, 176:4
co-conspirator's [1]
 - 100:21
co-conspirators [23]
 - 28:21, 56:13,
 109:12, 111:16,
 113:8, 115:17,
 117:23, 118:17,
 121:18, 122:12,
 124:4, 140:7, 143:23,
 172:25, 173:6,
 173:14, 175:9,
 177:19, 190:1,
 190:16, 198:15,
 199:1, 199:24
co-editor [2] - 13:4,
 13:8
co-editors [1] -
 13:17
coast [1] - 213:7
code [1] - 21:22
coefficient [3] - 67:2,
 192:14, 197:3
coefficients [2] -
 66:25, 158:6
colleagues [1] - 73:7
collect [4] - 131:13,
 149:10, 189:7, 211:9
collected [5] -
 128:18, 206:12,
 211:16, 211:17,
 212:21
collecting [1] - 216:6
college [1] - 12:20
colluded [1] - 188:20
collusion [2] - 10:25,
 12:5
collusive [2] - 126:6,
 126:7
color [2] - 58:7, 83:2
color-blind [2] -
 58:7, 83:2
colors [1] - 58:7
Columbus [1] - 3:16
Column [1] - 69:22
column [15] - 40:22,
 40:23, 41:2, 54:24,
 67:7, 67:15, 72:10,
 97:7, 98:18, 119:10,
 119:13, 129:15,
 129:16, 129:19, 144:1
columns [2] - 98:19,
 129:13
comb [1] - 25:1
combinations [5] -
 52:1, 115:6, 116:18,
 123:19, 198:24
comfort [2] - 213:7,
 213:10
comfortable [2] -
 6:8, 204:3
coming [3] - 207:1,
 223:2, 223:3
comment [8] -
 134:12, 135:8,
 135:18, 136:6,
 136:23, 137:2,
 137:11, 137:12
comments [3] -
 134:6, 134:24, 136:2
commercial [2] -
 218:21, 220:8
Commission [8] -
 9:2, 9:5, 14:13, 14:15,
 14:16, 15:15, 74:5,
 104:2
commission [3] -
 14:16, 14:25, 15:6
Committee [2] -
 171:6, 171:9
committees [1] -
 208:14
commodity [2] -
 132:16, 172:7
commonly [1] -
 74:14
communicate [3] -
 13:24, 96:5, 102:7
communicated [1] -
 102:6
communicating [2] -
 150:5, 193:3
communication [2] -
 71:2, 71:3
communications [6]
 - 132:14, 149:13,
 149:20, 150:2,
 150:18, 151:15
companies [14] -
 107:23, 119:10,
 119:13, 119:24,
 122:16, 124:19,
 125:3, 173:14,
 174:12, 177:18,
 177:20, 190:3,
 199:13, 222:8
company [3] -
 164:23, 204:19, 220:6
Company [3] - 2:8,
 2:8, 2:23
company's [1] -
 164:24
compare [1] - 197:17
compared [1] -
 128:18
compares [2] -
 114:13, 114:14
comparison [1] -
 12:4
competing [1] - 77:4
Competition [1] -
 15:3
competitive [10] -
 14:21, 74:5, 76:18,
 76:20, 77:4, 90:12,
 104:20, 107:9,
 107:13, 132:19
compile [1] - 222:8
complaint [1] -
 134:17
completed [1] -
 144:14
completely [4] -
 49:12, 70:9, 86:25,
 115:9
completeness [1] -
 53:20
completion [1] -
 228:8
complex [1] - 206:23
compliance [12] -
 126:18, 126:23,
 126:24, 163:24,
 163:25, 164:12,
 164:13, 164:25,
 165:4, 165:13, 192:7,
 192:19
complicated [1] -
 183:6
complying [4] -
 126:11, 127:2, 187:22
component [1] -
 208:2
components [4] -
 27:6, 39:10, 39:11,
 104:21
comprise [2] - 92:8,
 139:1
comprised [1] -
 174:7
compute [3] -
 128:19, 131:14,
 131:18
computer [1] - 8:22
ConAgra [5] - 144:2,
 144:5, 144:8, 198:21,
 199:20
conceivable [1] -
 64:21
concentrating [2] -
 4:23, 226:23
concept [1] - 178:11
concepts [1] -
 103:20
conceptually [1] -
 96:20
concerns [6] - 14:22,
 22:19, 45:12, 150:8,
 187:5, 207:3
concert [2] - 129:8,
 132:23
conclude [2] -
 109:11, 116:3
concluded [8] -
 34:23, 61:15, 106:22,
 117:20, 147:21,
 147:22, 148:2, 148:3
concludes [1] -
 134:21
conclusion [1] -
 109:3
conclusions [4] -
 29:3, 47:7, 65:6, 75:7
concoct [1] - 45:1
conditions [1] -
 80:15
conduct [41] - 22:9,
 22:12, 23:3, 23:16,
 24:3, 25:18, 26:3,
 26:16, 28:7, 28:16,
 28:22, 31:17, 31:20,
 32:20, 41:16, 51:3,
 57:11, 70:22, 81:6,
 81:8, 82:6, 89:13,
 92:16, 109:13, 113:9,
 115:15, 119:8,
 119:14, 120:4, 120:9,
 120:13, 120:18,
 120:21, 121:3,
 121:11, 121:18,
 121:24, 151:19,
 151:23, 157:2, 171:16
conducted [5] - 12:4,
 92:18, 106:22, 115:3,
 172:24
conducting [3] -
 10:22, 10:25, 89:17
confer [1] - 227:13

confidence [7] - 55:15, 85:24, 85:25, 86:2, 86:4, 86:5, 86:6
confident [4] - 55:9, 55:18, 55:24, 140:19
confine [1] - 172:24
confirmed [1] - 9:25
conformed [1] - 73:25
confuse [1] - 84:21
confused [3] - 55:17, 161:5, 161:11
Congress [1] - 15:21
conjunction [5] - 109:7, 161:23, 186:23, 194:16
connected [1] - 211:14
connection [18] - 21:10, 21:14, 25:8, 26:17, 27:21, 28:4, 29:22, 59:5, 59:14, 73:24, 101:23, 102:24, 108:22, 124:21, 126:12, 127:14, 136:25, 200:13
Conopco [1] - 2:8
consequence [1] - 127:20
conservative [8] - 74:23, 128:2, 129:1, 129:21, 184:13, 184:22, 184:23, 191:14
consider [10] - 24:12, 24:13, 31:18, 47:4, 74:22, 89:18, 103:16, 173:13, 186:16
considered [2] - 42:22
considering [2] - 73:4, 185:7
considers [1] - 209:8
consist [1] - 104:21
consistent [14] - 85:12, 98:2, 98:3, 98:17, 101:13, 111:9, 125:11, 125:23, 125:25, 132:9, 136:19, 150:11, 158:9, 158:14
consists [2] - 104:22, 104:23
Conspiracy [1] - 93:14
conspiracy [92] - 26:13, 26:14, 29:6, 29:7, 29:13, 36:18, 36:20, 38:3, 50:9, 50:16, 50:17, 50:20, 51:4, 51:7, 51:12, 51:13, 51:17, 55:12, 57:25, 58:13, 58:14, 58:21, 61:6, 69:25, 70:9, 70:17, 71:17, 81:17, 81:19, 82:2, 84:24, 85:10, 91:1, 96:7, 97:23, 98:20, 107:6, 107:7, 109:4, 119:2, 120:17, 126:2, 126:14, 127:6, 127:7, 132:10, 132:11, 134:9, 134:16, 134:18, 134:19, 134:21, 135:3, 135:5, 136:12, 136:22, 137:1, 137:19, 138:2, 139:9, 139:12, 139:17, 140:2, 147:18, 149:17, 149:23, 152:3, 157:1, 173:24, 175:13, 175:15, 175:16, 177:21, 180:8, 183:2, 183:5, 184:7, 189:9, 191:15, 191:19, 193:24, 198:1, 198:22, 199:3, 199:15, 199:25, 200:6, 201:7, 201:11, 201:14
conspirator [12] - 115:6, 116:12, 116:18, 117:12, 117:16, 118:11, 144:9, 147:23, 148:4, 167:11, 173:10, 176:4
conspirator's [1] - 100:21
conspirators [23] - 28:21, 56:13, 109:12, 111:16, 113:8, 115:17, 117:23, 118:17, 121:18, 122:12, 124:4, 140:7, 143:23, 172:25, 173:6, 173:14, 175:9, 177:19, 190:1, 190:16, 198:15, 199:1, 199:24
conspired [1] - 51:10
conspiring [1] - 156:15
constant [3] - 34:7, 49:17, 49:19
constructed [2] - 90:18, 102:14
consultant [2] - 8:17, 68:15
consulting [3] - 8:16, 8:21, 21:9
consume [2] - 49:22, 106:3
consumed [1] - 105:23
Consumer [3] - 15:18, 15:19, 16:8
consumer [3] - 11:23, 15:23, 21:3
consumer's [1] - 92:9
consumers [17] - 8:14, 12:2, 12:3, 12:7, 16:1, 19:25, 27:1, 76:25, 77:5, 90:10, 90:11, 92:2, 92:3, 97:13, 104:9, 106:1, 187:25
consumption [12] - 27:5, 32:1, 49:22, 105:6, 106:25, 107:15, 108:9, 108:12, 108:15, 128:19, 172:4, 172:6
CONT [1] - 2:25
cONT [1] - 3:1
contaminated [1] - 83:15
contaminating [1] - 82:5
contemporaneous [2] - 47:5, 131:15
contend [1] - 45:15
contention [3] - 28:24, 45:17, 45:18
context [13] - 44:2, 44:23, 47:19, 64:2, 70:21, 72:20, 95:4, 100:15, 104:5, 182:24, 184:19, 185:5, 192:20
contexts [1] - 74:6
continue [10] - 35:16, 39:20, 79:12, 83:8, 85:20, 94:9, 97:11, 133:11, 205:21, 224:21
continued [1] - 95:14
continuous [2] - 184:3, 208:9
continuously [1] - 205:6
contract [8] - 78:18, 115:10, 115:25, 116:6, 192:10, 192:11, 192:12, 209:14
contracts [1] - 111:17
contradict [1] - 29:2
contrary [1] - 139:22
contributed [2] - 36:21, 37:13
contributions [1] - 13:18
control [48] - 42:15, 43:5, 43:8, 43:9, 43:13, 43:16, 43:20, 44:2, 44:6, 44:10, 44:11, 44:12, 44:21, 45:4, 45:10, 45:11, 45:17, 47:19, 47:25, 48:4, 48:10, 48:18, 48:20, 49:4, 50:1, 51:18, 52:25, 53:7, 64:12, 64:13, 64:16, 84:2, 84:4, 84:17, 88:24, 137:24, 137:25, 138:1, 183:16, 186:1, 190:3, 209:19, 209:21, 210:1, 210:5
controlled [8] - 45:5, 45:8, 124:12, 124:18, 125:3, 139:18, 174:4, 213:3
controlling [12] - 37:13, 42:10, 42:12, 44:14, 44:19, 47:21, 49:8, 49:11, 49:14, 52:23, 64:15, 183:15
controls [19] - 42:23, 44:15, 44:25, 46:12, 49:9, 50:21, 51:24, 52:1, 62:24, 64:6, 64:7, 64:12, 70:13, 73:4, 73:15, 75:4, 134:16, 185:20
convenient [1] - 44:14
convention [1] - 111:6
conversation [4] - 17:24, 118:16, 181:4, 198:18
converts [1] - 60:5
cooler [2] - 211:17, 211:19
coordinate [1] - 132:7
Coordinated [2] - 128:10, 129:17
coordinated [11] - 38:12, 127:11, 127:24, 128:21, 129:7, 129:23, 130:5, 131:16, 132:7, 150:11
coordination [2] - 189:25
copies [1] - 55:21
copy [6] - 9:14, 31:11, 33:6, 61:9, 141:23, 141:25
corn [6] - 48:8, 48:9, 48:14, 48:15, 84:4, 84:18
corner [2] - 210:12, 221:20
corporate [1] - 207:3
Corporation [1] - 120:24
correct [223] - 14:9, 21:19, 22:6, 25:21, 25:22, 28:17, 28:18, 31:3, 32:7, 41:12, 43:24, 50:3, 52:6, 52:7, 52:10, 52:11, 53:13, 54:17, 54:18, 57:20, 57:21, 60:2, 60:3, 65:13, 65:14, 65:17, 65:18, 67:6, 72:13, 75:21, 79:10, 79:11, 82:16, 83:6, 83:7, 84:18, 85:18, 85:19, 86:19, 87:6, 87:7, 87:12, 90:22, 91:21, 91:23, 94:8, 95:16, 97:5, 98:9, 101:4, 101:5, 101:10, 102:17, 103:1, 111:10, 111:12, 111:13, 117:14, 119:19, 119:20, 119:22, 119:24, 119:25, 123:8, 124:5, 124:6, 129:17, 129:24, 129:25, 130:3, 130:14, 130:15, 130:17, 130:18, 130:20, 130:21, 130:23, 130:24, 131:2, 131:6, 131:23, 131:24, 133:4, 142:18, 146:16, 146:20, 146:21, 147:14, 147:19, 147:23, 148:5, 148:20, 148:21, 148:25, 149:6, 149:11, 149:14, 149:15, 149:18, 150:14, 150:23, 151:1, 151:4, 151:8, 151:9, 151:12, 151:20, 152:22, 153:1, 153:23, 153:24, 154:3, 154:9, 154:11, 155:10,

155:11, 155:16,
155:17, 155:20,
155:21, 155:22,
155:23, 156:1, 156:2,
156:7, 156:8, 156:14,
156:22, 156:23,
157:3, 157:7, 158:11,
159:9, 159:21, 160:7,
160:8, 160:17,
160:21, 160:22,
160:25, 161:15,
161:19, 161:20,
162:25, 163:24,
164:1, 164:2, 165:10,
165:11, 165:15,
165:16, 165:18,
165:19, 166:17,
166:18, 167:4, 167:8,
167:14, 167:20,
167:21, 167:23,
168:1, 168:4, 168:6,
168:7, 168:10,
168:15, 168:20,
169:1, 169:7, 169:19,
170:21, 170:22,
171:16, 171:21,
172:2, 172:10,
172:12, 172:14,
172:17, 172:18,
172:20, 172:21,
173:6, 173:15,
174:14, 174:16,
174:22, 175:7,
175:13, 175:25,
176:15, 176:20,
176:23, 177:7, 177:8,
177:12, 177:20,
177:21, 178:23,
178:25, 179:18,
180:7, 180:9, 180:12,
180:19, 180:20,
181:14, 181:19,
181:20, 199:16,
199:18, 199:21,
201:3, 201:4, 201:9,
218:14, 220:13,
221:25, 222:1, 228:16
Correct^[1] - 158:10
correction^[1] -
179:19
correctly^[10] -
159:8, 161:7, 162:9,
162:11, 162:12,
162:17, 163:20,
163:21, 169:19,
206:12
correlated^[3] -
186:17, 186:20,
186:22
correlation^[1] -

116:2
cost^[8] - 29:16,
43:23, 44:4, 48:7,
51:10, 137:15, 218:9
costly^[1] - 197:22
costs^[16] - 36:16,
43:10, 43:12, 43:13,
43:17, 46:15, 46:16,
46:17, 46:18, 64:12,
91:1, 167:7, 210:5,
218:7, 218:10
Council^[4] - 15:18,
16:6, 16:8, 171:10
council^[1] - 16:11
counsel^[14] - 25:11,
33:2, 68:13, 68:14,
118:15, 123:4, 123:7,
134:2, 142:8, 149:22,
163:24, 173:13,
173:17, 176:5
Counsel^[9] - 68:12,
182:9, 189:15, 191:1,
196:19, 197:6,
197:11, 198:13,
200:11
Counsel's^[1] -
194:19
counsel's^[1] - 145:2
Country^[2] - 120:14,
122:19
country^[4] - 35:20,
172:2, 176:23, 177:4
County^[2] - 206:15,
223:20
couple^[13] - 11:23,
79:21, 88:16, 143:12,
157:20, 159:13,
184:10, 185:6,
195:16, 223:21,
225:1, 225:4, 226:10
coupled^[1] - 40:10
course^[6] - 8:4,
10:18, 38:17, 83:11,
97:3, 153:3
COURT^[100] - 1:1,
4:2, 4:4, 4:14, 4:20,
5:12, 6:1, 6:4, 6:7,
9:8, 10:5, 10:8, 10:11,
20:14, 20:19, 25:13,
30:19, 33:12, 67:19,
67:23, 68:4, 68:18,
68:21, 68:24, 69:5,
100:2, 100:6, 103:11,
103:13, 112:12,
112:16, 112:20,
112:24, 113:3,
113:25, 116:23,
117:1, 117:4, 117:7,
124:2, 141:3, 141:14,
141:20, 141:25,

142:5, 142:9, 142:17,
142:20, 142:22,
143:6, 143:10,
144:14, 144:17,
144:19, 153:8,
153:11, 154:17,
154:19, 154:22,
155:6, 157:11,
161:12, 162:16,
162:20, 169:23,
170:3, 181:3, 181:22,
181:25, 200:18,
200:20, 201:19,
201:23, 202:1, 202:8,
202:13, 202:18,
202:21, 203:1, 203:7,
203:11, 203:13,
203:15, 203:24,
204:2, 224:16, 225:1,
225:4, 225:21, 226:1,
226:5, 226:13,
226:18, 226:21,
227:12, 227:21,
227:24, 228:1, 228:4,
228:10
court^[3] - 4:1, 18:11,
31:7
Court^[7] - 1:21,
30:13, 117:3, 142:12,
149:23, 228:13,
228:21
Court's^[1] - 142:7
Courthouse^[1] -
1:22
courtroom^[2] - 22:4,
68:16
cover^[4] - 29:1,
40:15, 47:12, 127:10
covered^[8] - 11:18,
43:23, 46:15, 51:24,
54:1, 63:6, 103:21,
145:17
covering^[2] - 134:8,
136:1
covers^[2] - 54:16,
54:19
Cowboy^[2] - 201:25,
202:5
Coyle^[1] - 203:2
crazy^[1] - 18:2
create^[3] - 37:24,
38:2, 192:25
created^[2] - 15:20,
15:25
creates^[1] - 194:6
creating^[1] - 158:25
credit^[2] - 49:5,
49:12
Creek^[1] - 214:7
crew^[2] - 205:13,

208:5
crews^[1] - 205:14
critical^[4] - 46:19,
78:15, 125:6, 194:3
criticism^[1] - 187:11
criticisms^[1] - 11:10
cross^[2] - 144:17,
181:22
CROSS^[1] - 144:20
cross-examination^[1] -
181:22
CROSS-
EXAMINATION^[1] -
144:20
cross-examine^[1] -
144:17
CRR^[2] - 1:21,
228:21
CSR^[2] - 1:21,
228:21
cumulative^[1] -
124:12
curiosity^[1] - 88:13
curious^[1] - 34:10
current^[8] - 9:14,
9:15, 9:16, 47:6,
204:14, 207:22,
219:24
curriculum^[1] - 9:13
curve^[14] - 34:3,
34:6, 58:8, 90:25,
91:13, 91:16, 91:17,
91:19, 91:22, 91:24,
91:25, 92:1
customer^[8] - 154:1,
154:7, 154:25, 221:1,
223:1, 224:1, 224:8,
224:11
customers^[10] -
76:22, 136:9, 157:2,
196:9, 216:15,
216:17, 219:7,
219:10, 220:22,
220:23
cut^[2] - 27:4, 226:15
CV^[6] - 9:14, 9:22,
9:24, 9:25, 10:5,
10:14
cycle^[7] - 206:13,
213:20, 215:10,
215:11, 215:13,
216:11, 222:10

D

D-175^[1] - 166:1
daily^[4] - 31:13,
170:25, 206:10,
211:17

Daily^[1] - 102:20
Dame^[1] - 202:1
dampen^[1] - 184:16
Dan^[2] - 12:17,
13:15
dark^[2] - 85:24,
114:16
dash^[2] - 60:5, 61:8
data^[85] - 18:21,
19:10, 24:18, 24:19,
30:24, 30:25, 31:25,
32:23, 33:25, 34:15,
34:16, 36:1, 40:10,
41:19, 42:24, 53:4,
58:9, 61:2, 73:22,
81:17, 81:24, 81:25,
82:23, 82:24, 83:13,
83:14, 83:19, 84:3,
84:8, 84:9, 85:3, 85:9,
86:18, 86:21, 86:23,
88:19, 88:20, 88:23,
92:22, 93:4, 93:20,
94:23, 94:25, 96:12,
111:21, 113:12,
113:19, 113:20,
114:10, 114:12,
114:15, 114:17,
114:22, 115:2,
115:24, 125:19,
131:13, 134:18,
136:20, 137:16,
139:5, 140:2, 149:10,
150:14, 150:15,
150:16, 151:13,
171:15, 171:18,
171:20, 171:24,
171:25, 172:23,
183:10, 189:6,
197:18, 198:11,
198:12, 222:9
data-driven^[2] -
150:14, 150:15
database^[3] - 24:22,
100:22
date^[16] - 40:15,
40:17, 42:2, 46:14,
71:17, 71:25, 124:13,
124:15, 124:25,
125:7, 151:23, 152:2,
152:21, 153:21,
184:12
Date^[2] - 52:15,
228:23
dated^[2] - 101:19,
102:21
dates^[4] - 39:11,
39:24, 171:1, 175:2
dating^[1] - 184:10
David^[4] - 203:14,
203:23, 206:4, 220:5

DAVID [2] - 2:11, 204:5
DAY [1] - 1:16
day-of-age [3] - 212:25, 214:12, 217:23
day-old [5] - 42:7, 208:6, 209:15, 210:18, 213:11
days [8] - 211:10, 211:17, 211:18, 211:23, 212:6, 212:8, 213:18, 217:15
DC [1] - 3:12
deal [2] - 192:6, 217:7
deals [2] - 5:3, 15:23
DECEMBER [1] - 1:9
December [3] - 4:21, 54:20, 66:11
decide [1] - 226:11
decided [1] - 38:11
deciding [1] - 226:14
decision [6] - 11:5, 15:6, 15:8, 16:15, 18:7, 226:13
decision-makers [1] - 15:6
decision-making [1] - 16:15
decisions [4] - 46:21, 46:24, 47:2, 47:10
decline [8] - 12:2, 37:14, 44:7, 55:23, 56:12, 58:13, 58:20, 119:1
declined [3] - 53:19, 59:10
declines [1] - 36:22
Decrease [1] - 129:16
decrease [6] - 129:23, 130:16, 130:19, 130:22, 130:25, 131:4
dedicated [2] - 193:20, 216:24
deeper [1] - 89:21
Defendant [7] - 3:16, 100:20, 109:22, 113:18, 119:14, 123:19, 173:9
Defendants [10] - 3:7, 45:15, 56:13, 109:9, 109:13, 115:21, 118:18, 121:10, 121:18, 204:6
Defendants' [30] - 16:24, 22:9, 22:12, 23:3, 23:16, 24:3, 25:18, 28:6, 28:15, 31:16, 31:19, 32:20, 51:2, 57:10, 79:9, 81:7, 89:13, 113:8, 114:17, 119:8, 120:4, 120:9, 120:13, 120:18, 120:21, 121:3, 121:24, 132:1, 134:7, 136:24
defense [1] - 51:15
Defense [11] - 68:11, 182:9, 189:15, 191:1, 194:18, 196:19, 197:6, 197:10, 198:13, 200:11, 203:5
define [2] - 107:10, 107:11
definitely [2] - 222:17, 223:4
definition [7] - 67:15, 67:17, 104:7, 106:12, 106:22, 107:12, 117:17
definitions [1] - 26:22
degree [5] - 7:12, 7:13, 64:23, 205:2
degrees [2] - 8:22, 15:14
delay [1] - 217:11
deliberate [1] - 227:4
delivered [1] - 213:14
delivery [2] - 210:3, 211:12
demand [49] - 27:1, 27:3, 27:23, 28:1, 28:10, 45:12, 89:18, 90:9, 91:7, 91:9, 92:1, 92:5, 92:17, 92:21, 92:24, 93:4, 93:20, 93:23, 94:10, 94:12, 95:18, 96:9, 96:21, 97:12, 98:1, 98:4, 99:14, 100:25, 101:8, 101:14, 102:12, 103:4, 104:7, 104:8, 104:10, 104:11, 108:10, 109:7, 128:1, 128:2, 128:23, 129:10, 129:21, 178:12, 178:16, 188:1, 216:21, 219:18
Demand [1] - 93:12
demanded [5] - 92:6, 178:13, 178:20, 178:21, 179:13
demands [1] - 221:1
demonstrates [4] - 38:13, 106:1, 123:21, 184:11
demonstrative [15] - 30:14, 33:2, 33:20, 52:2, 100:4, 101:22, 102:23, 112:22, 141:23, 142:11, 155:4, 166:13, 210:7, 210:9, 213:24
demonstratives [3] - 25:10, 141:1, 142:13
density [4] - 156:5, 159:15, 161:18, 187:15
Department [3] - 14:17, 36:9, 104:2
department [5] - 6:23, 206:25, 207:12, 208:20, 208:21
departments [1] - 205:11
departure [1] - 139:20
deposed [1] - 184:10
deposing [1] - 157:14
deposition [16] - 145:8, 145:14, 145:17, 157:13, 158:1, 162:3, 163:8, 163:11, 169:11, 173:8, 190:20, 191:11, 194:11, 195:2, 195:3, 196:16
depositions [2] - 24:23, 80:25
DEPUTY [13] - 4:18, 5:18, 5:22, 68:2, 69:3, 141:12, 141:19, 143:8, 202:16, 202:24, 203:16, 203:20, 224:24
deputy [1] - 4:1
derived [2] - 101:12, 102:25
describe [4] - 7:10, 8:9, 22:11, 204:24
described [10] - 13:12, 58:3, 89:20, 100:22, 102:9, 109:6, 112:2, 117:10, 174:3, 225:24
design [2] - 151:22, 221:5
designated [1] - 20:20
designed [9] - 19:3, 89:1, 115:18, 116:14, 151:3, 151:6, 170:12, 181:12, 190:19
desire [1] - 220:24
desired [1] - 154:8
destined [3] - 172:15, 172:16, 217:3
detail [2] - 29:1, 63:3
details [3] - 36:2, 88:3, 165:24
determination [2] - 147:15, 147:17
determine [15] - 23:2, 23:14, 24:1, 25:17, 28:5, 28:13, 61:14, 83:21, 111:14, 115:6, 133:21, 151:18, 152:21, 181:12, 216:21
determined [7] - 27:25, 28:1, 28:2, 99:16, 100:16, 180:5, 180:10
determining [4] - 31:18, 32:19, 39:2, 156:18
developed [1] - 220:7
development [2] - 37:11, 225:13
Dewey [1] - 186:24
Dewey-West [1] - 186:24
DGP [1] - 44:18
diagnostic [2] - 63:20, 65:4
diagnostics [1] - 65:4
diagonal [1] - 35:2
die [3] - 70:5, 79:23, 80:11
diesel [1] - 48:18
differ [2] - 89:7, 117:22
difference [8] - 36:15, 46:17, 50:8, 66:23, 67:2, 133:16, 173:9, 218:24
differences [1] - 222:2
different [62] - 10:24, 13:16, 19:5, 24:20, 26:12, 34:13, 34:18, 34:23, 34:25, 41:23, 42:22, 42:23, 42:25, 47:1, 47:8, 51:25, 56:10, 60:19, 60:25, 61:15, 61:16, 62:2, 62:22, 62:24, 65:7, 75:2, 77:8, 93:25, 95:22, 96:8, 99:12, 107:12, 108:3, 110:12, 110:18, 116:17, 117:21, 117:22, 123:19, 123:21, 153:19, 159:19, 161:10, 174:9, 195:4, 195:7, 207:19, 208:1, 215:8, 218:17, 218:18, 222:7, 222:18, 222:24, 223:1, 223:2, 223:7, 224:7, 224:15, 225:12
differential [2] - 71:10, 185:20
difficult [2] - 78:16, 189:7
dig [1] - 89:21
dilemma [1] - 188:3
dime [1] - 35:17
dire [1] - 20:14
DIRECT [2] - 6:14, 204:8
direct [6] - 21:19, 91:15, 144:14, 163:11, 169:10, 208:22
directing [1] - 190:24
direction [1] - 125:18
directly [2] - 104:1, 146:20
director [1] - 208:25
Directors [2] - 208:15, 208:16
disagree [3] - 135:7, 136:7, 137:11
discard [1] - 187:10
discharging [1] - 21:11
discipline [1] - 19:8
discount [2] - 115:8, 123:23
discounts [2] - 116:11, 116:16
discovered [1] - 197:22
discovery [3] - 24:21, 24:22, 114:18
discriminate [1] - 19:4
discuss [3] - 67:25, 74:10, 216:20
discussed [6] - 65:8, 70:13, 98:12, 98:24, 152:4, 192:2
discussing [1] - 75:5
discussion [2] - 110:16, 143:2
disease [2] - 79:22, 80:17
disentangle [1] - 73:22

disputes [1] - 13:22
disregard [1] - 62:9
disruption [1] - 217:5
distinctly [1] - 191:10
distorts [1] - 137:17
DISTRICT [2] - 1:1, 1:2
divide [1] - 147:8
divided [3] - 108:3, 137:15, 147:9
dividing [1] - 138:1
Dixie [4] - 2:22, 119:19, 121:15, 121:16
Doctor [1] - 82:25
document [6] - 25:4, 101:23, 102:1, 102:24, 108:4, 125:22
documentary [13] - 41:25, 45:19, 48:8, 48:11, 56:18, 70:3, 79:6, 92:23, 95:8, 107:21, 114:23, 132:12, 148:9
documentation [1] - 223:4
documented [1] - 128:16
documenting [1] - 12:2
documents [17] - 25:2, 25:4, 27:25, 37:7, 88:16, 99:19, 99:20, 108:2, 108:10, 125:23, 131:15, 133:22, 133:23, 148:7, 149:20, 193:4
Dodd [2] - 15:21, 15:25
Dodd-Frank [2] - 15:21, 15:25
doff [1] - 141:7
dollar [1] - 108:6
Domestic [1] - 129:17
domestic [1] - 129:23
domestically [1] - 106:3
Don [8] - 45:20, 46:2, 56:19, 57:1, 71:2, 135:14, 159:13, 159:25
don [1] - 141:7
dONALD [1] - 3:10
done [26] - 11:25, 14:12, 25:20, 38:21, 72:20, 73:5, 83:22,

84:7, 110:9, 113:20, 137:14, 143:1, 150:13, 153:8, 155:12, 167:17, 180:2, 180:16, 183:20, 189:16, 189:18, 198:7, 211:23, 221:5, 226:15, 226:16
dotted [2] - 60:4, 61:9
double [7] - 21:25, 147:24, 154:4, 154:5, 154:19, 189:14, 227:14
double-check [2] - 21:25, 227:14
double-negative [1] - 147:24
doubled [1] - 27:10
doubly [1] - 202:2
doubt [1] - 177:14
DOUGLAS [1] - 2:4
down [22] - 8:6, 13:5, 26:10, 33:23, 35:1, 36:2, 40:14, 69:5, 69:11, 86:8, 88:21, 91:13, 96:14, 100:5, 126:4, 194:14, 207:1, 211:17, 221:11, 225:2, 226:15
downs [1] - 49:2
dozen [2] - 16:21, 90:16
dozens [2] - 24:20, 218:5
Dr [36] - 6:1, 9:21, 79:7, 79:9, 112:13, 112:18, 134:7, 134:12, 134:14, 135:8, 135:18, 136:2, 136:6, 136:13, 136:23, 137:2, 137:5, 137:12, 137:25, 139:22, 144:22, 153:4, 155:9, 157:13, 161:10, 162:2, 162:11, 170:17, 171:3, 171:8, 171:12, 178:1, 181:11, 182:4, 200:23
dramatic [1] - 187:23
dried [4] - 49:12, 96:11, 111:3, 111:7
drill [1] - 36:2
drive [1] - 4:25
driven [6] - 49:10, 50:18, 150:14, 150:15, 150:16, 150:20

driver [1] - 35:19
drivers [1] - 213:6
drop [1] - 29:11
Dropchek [1] - 206:4
Due [1] - 129:17
due [5] - 57:10, 90:25, 91:1, 129:23, 139:17
duly [2] - 6:13, 204:7
dummies [4] - 49:15, 49:21, 84:6, 89:1
dummy [4] - 64:19, 88:15, 89:3, 134:19
during [38] - 14:18, 28:24, 40:5, 40:13, 40:25, 41:7, 41:8, 41:9, 49:7, 49:12, 51:3, 53:8, 53:18, 54:11, 54:13, 54:23, 71:13, 76:3, 78:2, 80:8, 81:22, 86:15, 89:6, 95:9, 103:16, 105:22, 110:14, 118:21, 120:17, 137:1, 149:2, 198:22, 199:2, 199:15, 210:6, 213:20, 216:11
duties [1] - 206:22
dying [1] - 80:1

E

E.K [1] - 1:12
eager [1] - 143:2
Eagle [4] - 2:18, 119:12, 143:21, 144:1
early [9] - 11:21, 71:4, 78:2, 126:22, 185:9, 193:3, 193:16, 222:13
easier [5] - 7:3, 33:6, 90:6, 182:6, 221:7
Easter [1] - 49:23
EASTERN [1] - 1:2
easy [2] - 26:8, 126:3
eco [2] - 91:11, 134:10
econ [1] - 143:7
econo [1] - 186:11
econometric [29] - 27:25, 34:23, 37:11, 61:13, 87:24, 92:20, 92:25, 109:4, 111:5, 118:22, 127:16, 127:21, 134:15, 136:19, 139:23, 151:25, 152:11, 152:16, 153:24, 157:5, 170:17,

171:16, 172:22, 180:11, 180:17, 183:13, 183:18, 185:11, 192:15
Econometrica [1] - 11:24
econometrically [1] - 46:4
econometricians [2] - 55:6, 63:20
econometrics [21] - 7:22, 8:24, 18:15, 18:17, 18:18, 18:20, 18:21, 18:23, 18:24, 19:1, 19:2, 19:3, 19:7, 19:14, 20:7, 56:16, 180:13, 186:14, 186:16
Economic [4] - 8:5, 8:20, 100:12, 101:2
economic [67] - 8:7, 8:9, 8:10, 8:16, 8:20, 13:11, 13:20, 14:7, 14:24, 15:7, 16:13, 17:2, 17:5, 17:10, 17:16, 18:9, 18:12, 18:21, 20:9, 21:5, 23:1, 23:13, 23:25, 24:16, 25:5, 26:18, 27:21, 29:7, 36:21, 37:15, 37:23, 39:3, 44:25, 46:19, 51:14, 57:14, 59:6, 64:1, 68:15, 70:20, 72:20, 73:22, 74:1, 76:7, 81:1, 83:20, 85:3, 86:2, 87:1, 89:12, 89:17, 97:15, 104:15, 104:16, 104:17, 104:18, 107:5, 124:21, 125:24, 126:12, 132:24, 170:9, 189:5, 189:24, 193:6, 197:4, 197:14
economically [4] - 80:6, 99:16, 100:16, 101:11
economics [39] - 6:23, 7:5, 7:7, 7:13, 7:14, 8:22, 10:21, 10:23, 12:19, 12:21, 15:14, 16:17, 18:14, 18:23, 18:25, 19:7, 20:5, 20:12, 32:17, 45:3, 56:11, 63:25, 70:5, 73:14, 78:25, 79:1, 79:15, 85:1, 96:17, 98:3, 102:6, 104:16, 108:8, 126:25, 184:1, 194:6,

200:3, 200:4
Economics [5] - 13:4, 13:9, 13:15, 14:2, 74:4
economist [38] - 5:11, 7:5, 8:7, 8:10, 13:7, 15:11, 26:24, 26:25, 36:14, 36:19, 56:5, 61:1, 61:4, 70:7, 76:10, 76:11, 77:10, 77:20, 78:7, 79:9, 80:22, 124:22, 126:1, 127:4, 132:6, 134:7, 148:10, 150:4, 150:7, 150:9, 152:9, 153:18, 169:8, 170:9, 170:14, 175:22, 183:7, 200:6
economists [6] - 14:8, 15:10, 15:12, 16:12, 55:6, 63:20
economy [1] - 49:2
edges [1] - 88:21
edification [1] - 152:20
edited [1] - 12:16
edition [1] - 164:21
editor [10] - 11:3, 11:7, 13:4, 13:8, 13:11, 13:16, 14:7, 72:21, 74:3, 187:9
editorial [1] - 12:25
editors [1] - 13:17
edits [1] - 9:23
educational [2] - 7:11, 204:24
effect [82] - 32:12, 38:3, 40:9, 40:22, 40:24, 41:1, 46:3, 50:4, 50:8, 50:19, 50:20, 51:2, 51:8, 55:11, 57:8, 67:3, 70:10, 72:15, 72:25, 73:3, 76:1, 76:6, 78:11, 81:7, 84:25, 86:14, 88:7, 88:8, 129:8, 130:12, 130:14, 130:17, 130:20, 133:2, 133:6, 133:8, 134:9, 134:20, 148:23, 149:11, 151:11, 151:19, 151:23, 152:21, 152:24, 153:12, 153:22, 155:20, 156:2, 157:6, 158:4, 158:10, 158:20, 159:7, 161:24, 162:4, 162:8, 163:15, 164:4, 168:11, 181:12, 181:17, 181:18,

182:13, 182:17,
184:16, 186:6, 191:3,
194:17, 195:11,
195:12, 195:13,
195:21, 196:3, 196:7,
196:22, 196:25,
197:2, 197:3, 198:5
Effective [1] - 52:15
effective [2] - 71:25,
193:25
effectively [10] -
15:22, 15:25, 29:17,
39:1, 48:14, 70:10,
77:23, 78:21, 125:6,
196:9
effectiveness [2] -
126:2, 127:6
effects [42] - 11:25,
27:19, 42:10, 42:15,
53:2, 53:4, 55:25,
62:3, 74:6, 75:9,
81:18, 87:13, 89:1,
103:8, 104:20, 107:9,
107:11, 107:13,
110:20, 111:22,
131:14, 131:18,
133:10, 133:13,
133:14, 133:17,
133:19, 133:21,
133:22, 136:13,
151:3, 151:6, 152:13,
152:14, 152:15,
183:14, 183:19,
183:23, 185:21,
185:22, 191:16
Effects [1] - 128:10
efficiencies [2] -
209:20, 222:17
efficiency [4] - 8:13,
12:7, 79:16, 79:20
efficient [2] - 222:15,
223:10
efficiently [1] - 208:3
efforts [1] - 31:10
egg [130] - 17:22,
23:15, 24:19, 24:21,
26:10, 26:11, 28:6,
34:7, 35:17, 35:18,
38:10, 38:22, 38:23,
46:8, 46:22, 47:8,
48:15, 49:21, 49:22,
50:4, 59:2, 59:3, 59:5,
59:14, 59:21, 60:19,
60:22, 61:21, 61:23,
63:11, 63:14, 63:18,
64:25, 65:8, 65:16,
65:17, 65:20, 65:24,
66:4, 66:7, 66:12,
70:6, 72:1, 72:3, 75:5,
81:8, 87:11, 87:25,
88:1, 88:5, 88:23,
89:14, 89:18, 90:17,
91:3, 94:19, 95:9,
95:22, 96:9, 96:10,
98:14, 99:4, 99:13,
101:14, 102:15,
102:16, 103:4, 105:7,
106:2, 106:24,
107:24, 107:25,
108:1, 108:2, 108:4,
108:14, 109:9, 111:7,
114:11, 128:19,
130:4, 130:5, 131:4,
135:14, 136:24,
138:14, 139:13,
140:5, 150:25, 151:7,
153:23, 155:18,
157:6, 158:20,
161:24, 168:8,
168:17, 171:20,
172:19, 172:23,
173:1, 185:13,
185:21, 189:10,
193:22, 194:17,
198:5, 198:20, 209:5,
210:7, 210:10, 211:8,
211:10, 211:25,
216:24, 217:13,
221:25, 222:3, 222:25
Egg [18] - 3:7, 3:8,
29:9, 71:3, 100:13,
100:14, 101:3, 101:4,
120:23, 121:5, 121:6,
121:7, 121:12,
122:19, 122:21,
122:23, 123:12,
206:15
EGG [1] - 1:4
Egg-Laying [2] -
100:14, 101:4
Eggs [3] - 94:2, 94:6
eggs [219] - 23:4,
24:3, 24:21, 25:19,
26:4, 27:22, 28:1,
28:2, 28:10, 28:15,
28:25, 29:10, 31:17,
31:20, 32:1, 32:2,
32:18, 32:21, 34:12,
34:13, 35:14, 35:15,
35:16, 45:12, 45:16,
45:22, 45:24, 45:25,
46:1, 46:3, 46:5,
46:22, 49:23, 50:7,
50:11, 56:12, 59:10,
59:12, 59:18, 60:11,
60:16, 61:25, 62:2,
64:20, 65:22, 70:2,
72:5, 73:19, 76:17,
76:21, 76:23, 77:7,
77:9, 77:12, 77:14,
78:3, 78:5, 78:8,
78:13, 78:16, 78:17,
78:19, 78:22, 78:23,
81:3, 81:6, 89:7,
89:24, 90:2, 90:13,
90:14, 90:15, 90:16,
90:17, 90:21, 90:24,
92:17, 94:12, 95:6,
95:8, 95:11, 96:8,
96:11, 97:14, 97:19,
97:21, 98:5, 98:14,
99:4, 101:8, 101:14,
102:12, 103:4, 105:5,
105:6, 105:23, 106:2,
106:3, 106:4, 106:24,
106:25, 107:7,
107:15, 108:3, 108:6,
108:9, 108:10,
108:12, 108:14,
108:16, 108:19,
108:23, 108:24,
110:18, 110:19,
110:22, 110:25,
111:1, 111:3, 111:7,
111:11, 111:15,
113:7, 114:13,
114:14, 115:16,
115:25, 116:8,
117:16, 117:21,
118:1, 119:6, 119:9,
120:2, 120:7, 120:22,
121:4, 121:12,
121:16, 121:25,
128:3, 128:24, 129:9,
129:10, 129:18,
130:6, 130:10,
134:21, 137:14,
138:3, 138:15, 154:2,
154:8, 155:1, 159:2,
168:19, 170:20,
172:4, 172:5, 172:6,
172:7, 172:9, 172:10,
172:11, 172:13,
172:15, 172:16,
172:19, 189:10,
192:11, 193:19,
193:20, 193:21,
195:16, 196:10,
196:11, 196:13,
196:15, 198:11,
198:21, 199:2,
199:14, 201:4,
206:11, 208:3, 208:6,
208:8, 210:24, 211:4,
211:5, 211:6, 211:9,
211:10, 211:11,
211:16, 211:22,
212:20, 212:23,
215:2, 215:3, 215:4,
215:7, 216:5, 216:7,
216:9, 217:12,
217:13, 217:22,
218:11, 222:17, 224:9
eight [1] - 208:23
either [8] - 11:8,
77:5, 109:12, 114:6,
133:6, 143:3, 156:5,
192:22
elast [1] - 93:21
elastic [2] - 27:1,
27:23
Elasticities [1] -
93:13
elasticities [13] -
26:19, 92:24, 93:19,
93:23, 94:18, 96:6,
96:16, 96:19, 100:16,
109:7, 110:12, 129:2,
180:4
Elasticity [1] - 97:8
elasticity [60] -
26:23, 89:18, 89:24,
90:2, 90:9, 91:7, 91:9,
92:12, 92:17, 92:21,
93:4, 93:7, 94:10,
94:11, 94:18, 96:9,
96:13, 96:20, 96:21,
96:24, 97:4, 97:12,
97:16, 97:24, 98:1,
99:13, 99:14, 99:16,
100:23, 100:24,
101:7, 101:12, 102:2,
102:12, 102:25,
103:21, 103:23,
108:10, 110:11,
128:1, 128:2, 129:21,
130:10, 130:11,
171:22, 178:6, 178:8,
178:9, 178:12,
178:15, 178:16,
178:17, 178:19,
178:24, 179:3,
179:12, 179:16,
180:14
electricity [5] -
43:25, 44:2, 44:8,
64:14, 84:6
element [2] - 69:24,
183:5
elements [2] - 22:14,
37:12
elevate [2] - 22:22,
184:6
elevated [5] -
129:11, 136:21,
136:25, 139:25,
184:15
eliminate [1] - 43:21
eliminating [2] -
81:24, 129:9
emergency [1] -
22:16
emphasizes [1] -
189:1
empirical [4] - 8:11,
12:1, 19:12, 32:15
empirically [1] -
32:16
employed [2] - 7:6,
204:12
employees [3] -
208:18, 208:19,
208:20
employers [1] - 51:9
employing [1] -
157:3
empty [3] - 217:25,
218:8, 218:10
end [8] - 31:11, 40:5,
40:8, 67:25, 148:18,
164:20, 197:22, 226:3
ended [1] - 81:19
enforce [2] - 126:7,
126:14
enforced [1] - 71:10
enforcement [3] -
126:2, 127:4, 127:5
enforces [1] - 14:18
engage [1] - 170:11
engaged [5] - 145:2,
167:11, 167:13,
189:3, 227:15
engaging [3] -
190:17, 220:21,
227:17
enhancements [1] -
32:14
enjoy [4] - 67:24,
68:4, 141:10, 141:14
ensure [10] - 16:13,
47:7, 48:10, 49:9,
50:22, 59:17, 62:22,
82:3, 115:19, 126:10
entered [1] - 42:8
entire [9] - 8:1,
134:10, 142:25,
168:11, 174:23,
184:3, 193:15,
197:24, 214:11
entirely [1] - 151:5
entitled [2] - 101:2,
228:17
entity [2] - 95:7,
106:20
entry [9] - 56:2, 56:3,
56:4, 56:7, 56:15,
56:17, 56:18, 56:22,
94:3
environmental [1] -
223:6
environmentally [1]

- 213:3
environments [1] - 186:16
equal [1] - 74:9
equally [1] - 204:3
equals [1] - 175:13
equilibrium [1] - 90:14
eroding [2] - 170:6, 170:7
error [6] - 152:15, 183:15, 183:17, 186:4, 186:10, 186:20
errors [3] - 31:3, 186:17, 186:22
especially [4] - 77:15, 216:23, 222:24, 223:17
ESQUIRE [24] - 2:3, 2:3, 2:4, 2:4, 2:5, 2:10, 2:11, 2:11, 2:12, 2:16, 2:16, 2:20, 2:21, 3:3, 3:3, 3:4, 3:4, 3:5, 3:5, 3:10, 3:10, 3:11, 3:14, 3:14
essentially [5] - 61:24, 76:3, 108:5, 134:15, 183:16
establishing [1] - 104:3
estimate [16] - 38:3, 65:21, 81:18, 83:14, 83:17, 84:8, 85:5, 92:16, 92:20, 93:4, 96:7, 109:4, 109:8, 127:21, 130:12, 146:17
estimated [19] - 86:7, 88:2, 93:20, 94:10, 94:11, 94:17, 97:1, 98:12, 98:24, 109:7, 111:22, 128:25, 129:2, 129:3, 134:9, 149:2, 180:3, 184:12, 184:13
Estimated [1] - 93:12
estimates [9] - 55:7, 96:6, 101:7, 102:11, 110:11, 184:8, 184:13, 184:22, 184:23
estimating [1] - 83:12
estimation [2] - 83:15, 85:12
evaluate [5] - 11:3, 14:7, 18:6, 99:15, 125:10
evaluated [1] - 148:8
evening [3] - 224:20, 227:18, 228:11
evenings [1] - 4:7
evenly [1] - 16:25
event [7] - 38:17, 80:17, 102:8, 188:4, 188:8, 190:18, 191:23
events [5] - 38:4, 38:5, 44:20, 150:17, 150:20
eventually [2] - 18:8, 192:1
evidence [19] - 10:3, 29:1, 38:20, 86:14, 89:15, 99:24, 100:1, 101:21, 102:22, 127:17, 141:2, 148:10, 150:19, 154:1, 154:7, 154:25, 156:18, 165:25, 195:4
evolution [6] - 71:1, 71:2, 84:11, 193:13, 193:15, 195:20
evolved [2] - 164:16, 191:25
evolves [1] - 71:4
evolving [1] - 164:14
exactly [17] - 38:13, 56:6, 59:16, 60:9, 66:25, 87:24, 90:18, 102:4, 116:14, 145:21, 149:1, 164:7, 169:20, 170:9, 195:13, 197:1
examination [3] - 20:15, 148:18, 181:22
EXAMINATION [5] - 6:14, 144:20, 182:2, 200:21, 204:8
examine [15] - 36:24, 37:11, 38:5, 50:22, 63:20, 73:14, 74:5, 108:23, 115:4, 127:10, 144:17, 149:11, 150:12, 183:2
examined [6] - 6:13, 70:11, 82:4, 87:3, 113:10, 204:7
examining [8] - 45:2, 73:21, 104:22, 104:24, 136:11, 138:2, 140:1, 150:10
example [24] - 14:25, 27:7, 38:6, 38:24, 39:23, 49:24, 51:8, 59:19, 80:7, 80:21, 90:12, 92:2, 92:10, 110:14, 118:20, 123:17, 125:10, 132:21, 134:25, 171:23, 172:5, 185:8, 188:2, 188:11
examples [3] - 50:13, 79:21, 99:20
except [2] - 137:25, 163:14
exception [1] - 74:13
excluded [2] - 65:2, 198:9
excuse [14] - 9:21, 50:19, 54:8, 54:24, 71:24, 87:8, 95:19, 112:12, 119:3, 135:20, 153:6, 164:10, 189:17, 227:5
executive [1] - 208:14
executives [1] - 107:23
Exhibit [12] - 10:3, 99:23, 102:22, 109:2, 123:3, 124:9, 174:13, 176:15, 176:19, 176:21, 176:22, 201:2
exhibit [5] - 10:6, 174:6, 175:5, 177:23, 177:25
exist [3] - 57:24, 77:9, 78:17
existed [5] - 26:16, 27:20, 58:17, 136:20, 183:9
existence [1] - 104:3
existing [3] - 32:13, 158:24, 223:17
expand [4] - 56:7, 170:11, 190:7
expanded [2] - 57:5, 156:17
expansion [4] - 56:1, 165:9, 188:25, 198:8
expansions [6] - 32:13, 56:22, 187:22, 188:25, 189:3, 189:4
expect [16] - 34:8, 35:3, 35:8, 35:19, 35:23, 43:11, 50:5, 50:8, 50:9, 70:6, 78:7, 84:16, 86:6, 98:2, 216:11, 226:17
expected [1] - 50:5
experience [7] - 23:2, 23:14, 24:1, 73:25, 152:8, 204:25, 223:24
experienced [2] - 221:3, 221:9
expert [17] - 16:17, 17:5, 17:10, 17:16, 18:9, 18:12, 20:12, 20:24, 21:2, 21:6, 70:1, 79:5, 79:9, 114:1, 123:3, 138:25, 226:3
experts [5] - 11:3, 13:19, 13:21, 226:3, 226:10
explain [58] - 10:18, 14:11, 18:19, 19:19, 23:22, 23:24, 24:9, 25:23, 27:16, 29:5, 33:19, 38:7, 39:15, 42:23, 43:2, 44:23, 45:1, 50:15, 52:22, 61:25, 66:19, 70:19, 70:23, 87:21, 87:22, 88:17, 88:23, 89:23, 90:1, 96:18, 99:8, 100:17, 105:15, 107:1, 107:16, 107:18, 109:15, 125:15, 128:14, 134:11, 135:6, 136:5, 138:4, 178:11, 184:20, 185:4, 186:12, 191:6, 192:22, 194:2, 196:5, 196:6, 196:24, 204:18, 209:10, 210:16
explained [23] - 5:12, 25:16, 25:20, 28:4, 28:13, 35:3, 37:5, 41:10, 43:16, 55:5, 61:4, 61:20, 64:17, 67:14, 67:17, 81:4, 86:17, 87:25, 95:20, 198:16, 198:17, 198:21, 199:20
explaining [10] - 35:2, 63:19, 63:22, 64:25, 65:1, 69:20, 84:13, 87:25, 185:2, 185:24
explains [2] - 43:14, 43:22
explanation [1] - 140:16
explanations [1] - 19:5
explanatory [6] - 43:14, 72:23, 73:2, 73:14, 73:16, 123:25
explicit [2] - 164:22, 185:20
explicitly [3] - 45:5, 45:8, 124:14
Export [1] - 129:17
export [9] - 22:24, 127:11, 128:18, 128:20, 129:18, 130:7, 130:8, 172:15, 172:16
exported [1] - 128:3
exports [13] - 127:9, 127:11, 127:23, 127:24, 127:25, 128:16, 128:21, 129:8, 129:24, 131:16, 148:19, 148:20, 185:8
Exports [1] - 128:10
express [1] - 113:22
expressed [2] - 140:21, 200:13
extend [3] - 215:10, 215:12, 215:16
extent [13] - 23:3, 23:15, 24:2, 25:18, 28:5, 28:14, 45:16, 113:6, 113:21, 115:7, 184:6, 191:6, 223:25
Extra [2] - 94:2, 94:6
extra [3] - 138:18, 138:23, 167:7

F

F-test [2] - 135:1, 135:7
faces [1] - 143:3
facilities [5] - 193:20, 207:13, 212:16, 213:25, 217:25
facility [7] - 164:24, 211:14, 213:15, 214:2, 214:4, 214:7, 218:8
facing [1] - 132:24
fact [37] - 18:8, 19:5, 22:4, 22:20, 29:19, 34:17, 38:17, 39:8, 49:11, 50:15, 50:22, 55:13, 55:25, 65:6, 82:6, 86:8, 107:15, 113:22, 113:23, 114:24, 133:14, 136:21, 139:18, 147:17, 148:6, 160:14, 160:15, 162:24, 165:17, 165:20, 166:24, 177:5, 185:23, 188:19, 189:1, 191:17
factor [2] - 97:20, 216:19
factors [9] - 36:21, 37:13, 42:12, 43:9, 53:8, 64:18, 107:14,

137:24, 220:24
facts [4] - 30:2,
41:16, 112:14, 125:11
factually [2] - 112:19
faculty [1] - 6:25
fair [5] - 14:4, 14:6,
68:24, 203:13, 225:22
fairly [2] - 177:9
fall [3] - 92:6, 101:8,
102:12
falls [4] - 44:20,
96:24, 97:17, 104:10
familiar [6] - 18:17,
18:18, 101:19, 137:2,
137:6, 170:2
family [2] - 4:12,
224:20
family's [1] - 221:3
fan [2] - 201:25,
202:5
fans [1] - 44:4
far [8] - 72:10, 73:17,
75:3, 129:13, 132:13,
177:6, 202:19, 213:5
farm [20] - 125:16,
204:20, 205:12,
206:1, 206:14,
206:15, 206:24,
207:11, 207:18,
210:21, 210:22,
211:15, 213:9,
213:12, 216:6,
217:13, 217:20,
220:5, 223:17, 223:20
Farm [1] - 206:16
Farms [12] - 3:16,
112:5, 118:21,
118:25, 122:23,
123:13, 144:25,
204:13, 205:5,
208:14, 215:23,
218:19
farms [23] - 13:16,
44:9, 204:21, 205:12,
205:14, 205:19,
207:1, 207:4, 207:17,
207:18, 207:21,
208:1, 208:8, 209:14,
209:16, 210:20,
210:25, 211:1,
212:11, 212:21,
214:14, 217:2, 217:12
Farms' [1] - 208:16
fashion [2] - 38:12,
65:12
fast [1] - 4:23
fast-forwarding [1] -
4:23
faux [1] - 225:6
favor [1] - 135:4
features [1] - 32:6
February [19] -
53:13, 54:16, 65:23,
66:6, 71:25, 75:14,
89:8, 130:19, 166:21,
167:12, 167:13,
167:20, 168:6, 168:9,
168:14, 168:18,
169:6, 169:13, 170:21
fed [2] - 48:20,
206:11
Federal [10] - 9:2,
9:4, 14:12, 14:13,
14:14, 14:16, 15:15,
15:20, 74:5, 104:2
federal [5] - 9:5,
15:16, 48:24, 48:25,
222:24
feed [25] - 36:16,
37:21, 43:10, 43:12,
43:13, 43:17, 43:23,
46:15, 46:16, 46:17,
46:18, 48:7, 64:12,
91:1, 206:9, 209:1,
209:16, 209:17,
213:17, 213:19,
216:24, 216:25,
217:18, 222:15,
222:16
feet [1] - 219:3
Feldman [1] - 228:21
FELDMAN [1] - 1:21
fell [3] - 29:10, 43:12,
57:7
females [3] - 210:19,
210:23, 212:25
fertile [2] - 210:24,
217:22
fertilization [1] -
212:1
fertilized [5] - 172:5,
208:6, 211:4, 211:5,
211:6
few [9] - 9:1, 66:14,
72:18, 73:2, 96:17,
99:19, 127:24,
144:25, 226:20
fewer [9] - 32:15,
44:9, 45:23, 59:17,
135:21, 135:23,
159:1, 159:2
field [6] - 11:3,
12:14, 13:19, 41:11,
52:10, 54:24
fields [1] - 40:15
fight [1] - 4:12
figure [3] - 124:16,
151:16, 217:8
file [3] - 100:21,
126:24, 228:5
filed [3] - 30:8,
145:16, 145:19
files [1] - 100:19
filing [1] - 227:25
fill [2] - 208:7, 213:4
filled [5] - 38:11,
38:15, 38:21, 38:25,
39:23
filling [2] - 216:16,
217:2
final [2] - 30:5,
129:19
finally [6] - 74:12,
74:21, 121:15,
140:19, 200:10
finance [1] - 18:25
Financial [3] - 15:18,
15:19, 16:8
financial [3] - 15:24,
16:1, 16:2
findings [5] - 48:2,
59:20, 99:9, 109:16,
125:24
fine [6] - 10:7, 10:10,
58:24, 138:11,
144:24, 162:22
finish [7] - 135:22,
154:16, 158:19,
169:23, 170:3,
193:12, 226:7
finished [3] - 54:8,
79:18, 169:25
firm [6] - 8:21, 21:9,
27:2, 29:17, 104:11
firm's [2] - 178:13,
178:14
firms [12] - 8:12,
8:13, 8:14, 12:6, 17:3,
17:6, 19:23, 29:15,
32:13, 76:20, 92:23,
132:20
firms' [1] - 132:16
first [73] - 6:13, 9:6,
12:16, 14:14, 18:16,
24:15, 25:25, 26:22,
31:15, 31:21, 31:22,
32:22, 34:14, 39:4,
39:20, 40:2, 40:7,
40:8, 41:11, 42:7,
43:2, 43:4, 45:18,
52:10, 53:9, 53:14,
61:1, 63:15, 63:16,
65:10, 69:13, 73:1,
76:4, 77:18, 85:2,
93:25, 94:2, 94:3,
94:6, 103:19, 103:23,
107:21, 109:18,
114:18, 128:22,
131:8, 134:8, 134:11,
137:9, 144:1, 144:2,
145:2, 151:10,
151:14, 152:2,
152:23, 153:12,
160:6, 160:12,
160:16, 161:1, 161:3,
161:14, 186:1, 204:7,
205:8, 205:10,
213:17, 220:4, 221:4,
221:10
fit [1] - 38:18
five [9] - 8:6, 46:16,
47:4, 47:12, 135:2,
135:5, 180:18, 202:9,
202:14
Five [1] - 188:15
five-minute [1] -
202:9
five-month [1] - 47:4
fix [1] - 201:1
fixed [4] - 48:7, 48:8,
115:25, 218:10
flight [1] - 134:3
FLOCH [1] - 2:5
Flock [8] - 33:9,
33:15, 36:11, 52:6,
57:18, 57:19, 82:14,
82:15
flock [103] - 22:16,
31:18, 31:22, 31:24,
32:3, 32:9, 32:19,
33:24, 35:24, 40:13,
42:24, 43:2, 43:10,
43:11, 43:14, 45:1,
46:5, 51:3, 51:6,
52:19, 53:8, 53:12,
53:19, 53:22, 53:25,
54:7, 54:11, 54:22,
57:10, 57:23, 57:24,
58:10, 58:16, 58:17,
58:25, 60:10, 61:4,
61:19, 61:25, 63:2,
65:8, 73:18, 81:3,
81:6, 81:8, 82:21,
82:23, 83:23, 83:24,
83:25, 84:10, 84:14,
84:15, 85:5, 85:11,
87:2, 87:6, 88:1,
114:11, 124:8,
124:12, 132:7,
135:15, 135:16,
150:23, 150:24,
151:7, 151:22,
153:22, 156:20,
156:24, 158:20,
171:18, 174:15,
174:17, 174:21,
175:9, 175:10,
175:11, 175:25,
176:2, 176:3, 177:5,
177:6, 185:9, 186:18,
186:19, 190:6, 198:5,
201:3, 208:8, 215:10,
215:12, 216:4, 217:8,
217:10, 220:18,
220:19
flock-size [1] - 63:2
flocks [20] - 31:22,
31:25, 44:7, 49:18,
54:14, 56:9, 56:20,
59:11, 124:18, 125:2,
125:21, 173:25,
190:4, 198:10, 209:1,
210:14, 220:1, 220:7,
220:16
Flocks [2] - 100:14,
101:4
Floor [1] - 2:17
floor [1] - 221:11
Florida [1] - 2:6
flunk [1] - 188:13
FMI [1] - 171:9
focus [16] - 5:6, 5:7,
52:21, 63:15, 63:16,
71:12, 107:5, 107:8,
110:14, 154:19,
164:19, 185:3,
186:10, 195:1, 195:3,
225:11
focused [2] - 11:21,
195:6
focuses [1] - 12:6
focusing [2] - 62:21,
195:8
folks [4] - 67:23,
141:6, 141:21, 227:4
follow [3] - 139:23,
182:8, 222:25
follow-up [1] - 182:8
followed [1] - 139:9
following [4] - 60:17,
60:19, 122:12, 207:4
follows [2] - 6:13,
204:7
Food [4] - 120:8,
120:24, 121:6, 122:21
Foods [10] - 118:20,
120:3, 120:7, 120:14,
120:17, 120:23,
121:5, 122:1, 122:20,
193:18
football [1] - 201:25
FOR [1] - 1:2
forbade [1] - 167:3
force [1] - 194:4
forced [1] - 196:10
forcing [2] - 84:23
forecast [1] - 88:4
foreclosing [1] -
193:9
foregoing [1] -

228:16
foresaw [1] - 158:23
forget [2] - 27:8, 30:2
forgot [2] - 142:4,
 143:16
form [8] - 23:8,
 23:20, 24:7, 25:23,
 27:16, 27:22, 28:19,
 36:3
formal [5] - 16:16,
 104:16, 106:10,
 106:12
formally [8] - 73:21,
 92:20, 93:4, 109:21,
 127:20, 137:24,
 184:11, 227:22
formatter [1] - 9:24
formed [3] - 23:21,
 28:16, 39:5
forming [4] - 24:12,
 24:14, 73:24, 75:7
forms [1] - 10:24
forth [19] - 14:24,
 24:17, 25:1, 40:4,
 62:24, 73:5, 81:1,
 83:25, 84:18, 89:10,
 89:11, 118:14, 132:8,
 148:12, 149:21,
 150:5, 164:6, 183:10,
 187:23
fortunately [1] -
 31:10
forward [2] - 86:22,
 123:24
forwarding [1] - 4:23
founder [1] - 206:5
four [14] - 40:1, 40:3,
 45:21, 46:17, 47:2,
 47:3, 47:11, 64:12,
 119:9, 136:1, 211:17,
 211:18, 212:13,
 214:14
four-month [1] - 47:2
fraction [1] - 190:6
frame [1] - 225:22
framed [2] - 189:23
framework [1] -
 127:21
framing [1] - 78:6
Frank [2] - 15:21,
 15:25
fraternities [1] -
 188:7
free [29] - 32:2, 77:9,
 172:9, 174:24,
 218:22, 218:23,
 218:24, 218:25,
 219:4, 219:6, 219:8,
 219:9, 219:10,
 219:15, 219:16,

219:22, 219:23,
 219:24, 220:1, 220:2,
 220:3, 220:7, 220:13,
 220:19, 220:21,
 220:25, 221:2, 221:10
free-range [6] -
 218:23, 218:24,
 219:4, 219:6, 219:8,
 219:16
freedom [1] - 64:23
Fresh [1] - 122:22
friends [2] - 58:6,
 224:20
front [8] - 31:8, 33:5,
 69:11, 110:4, 122:8,
 128:9, 147:10, 222:16
frozen [3] - 110:25,
 111:1, 111:7
FTC [12] - 13:7, 13:8,
 14:15, 14:20, 15:4,
 15:7, 15:24, 24:17,
 26:9, 49:13, 78:10,
 150:4
full [2] - 5:23, 203:21
fully [1] - 41:1
function [1] - 49:19
functionally [1] -
 92:11
functioning [1] -
 19:23
fund [1] - 48:20
funds [2] - 48:24,
 48:25
furniture [1] - 69:10
future [1] - 106:15

G

gaining [1] - 46:1
gains [1] - 170:7
game [1] - 202:1
gap [7] - 58:19,
 85:16, 85:21, 85:23,
 88:9, 88:10
gather [2] - 131:17,
 221:22
gazillion [1] - 72:22
GDP [10] - 44:10,
 44:12, 44:16, 44:18,
 44:19, 44:20, 47:21,
 49:8, 64:14, 84:5
geared [1] - 180:18
gee [3] - 34:15,
 51:15, 190:9
GENE [1] - 1:12
general [3] - 24:15,
 184:17, 191:17
generally [4] - 35:5,
 74:1, 75:9, 158:23
generated [1] - 86:7
genetic [1] - 210:17
genetics [2] - 215:9,
 222:5
gentlemen [5] - 4:21,
 5:12, 7:10, 33:19,
 181:4
genuinely [1] - 142:7
geographic [9] -
 27:19, 28:3, 104:24,
 104:25, 105:11,
 106:5, 106:13,
 106:19, 106:23
Geographic [1] -
 105:19
GERMAINE [1] - 2:11
Giant [5] - 2:18,
 118:14, 119:12,
 143:21, 144:1
given [26] - 34:8,
 35:3, 35:8, 38:15,
 70:5, 84:9, 84:10,
 89:6, 116:11, 116:12,
 117:12, 118:15,
 135:23, 142:12,
 147:22, 148:3,
 156:13, 156:21,
 167:19, 168:13,
 183:10, 192:22,
 194:25, 213:2, 222:8
given-sized [1] -
 135:23
glad [1] - 228:10
glasses [2] - 94:15,
 94:16
goal [1] - 207:23
gobble [1] - 78:21
golly [1] - 194:8
goods [1] - 44:17
Government [3] -
 14:12, 15:20, 24:18
grab [1] - 192:24
grade [1] - 188:19
graduated [2] -
 205:1, 205:4
grain [3] - 111:17,
 115:10, 116:6
grain-based [3] -
 111:17, 115:10, 116:6
Grant [1] - 2:17
granularity [1] - 93:1
graph [15] - 32:24,
 33:25, 36:23, 57:12,
 57:16, 60:9, 60:13,
 60:14, 82:22, 82:23,
 82:24, 99:1, 137:13,
 137:23, 137:25
graphs [2] - 58:12,
 81:5
great [10] - 5:6, 6:3,

49:7, 49:10, 112:6,
 112:7, 219:18,
 226:23, 228:5, 228:10
Great [2] - 2:7, 36:17
greater [1] - 51:6
Greg [1] - 226:9
grew [1] - 220:9
Grocers [1] - 2:23
Grocery [1] - 2:8
grossly [1] - 58:13
group [6] - 173:24,
 174:1, 176:1, 176:4,
 177:21, 221:15
groups [1] - 140:12
grow [9] - 50:6,
 204:20, 209:12,
 209:15, 210:20,
 213:20, 216:4,
 216:11, 220:25
grow-out [3] -
 204:20, 213:20,
 216:11
growing [5] - 35:24,
 208:7, 210:4, 210:20,
 217:10
grown [3] - 186:13,
 213:19, 214:21
growth [4] - 35:22,
 35:23, 51:4, 219:24
guess [12] - 12:15,
 16:25, 30:6, 55:7,
 55:9, 58:22, 110:25,
 124:25, 144:8, 146:1,
 186:24, 227:22
guideline [1] - 161:4
guidelines [20] -
 29:16, 40:21, 42:8,
 126:18, 126:24,
 158:22, 161:15,
 164:22, 164:23,
 165:8, 165:9, 165:22,
 166:5, 166:10, 170:6,
 188:24, 191:25,
 195:22, 195:24, 196:3
Guidelines [16] -
 22:19, 32:9, 39:12,
 40:20, 56:21, 76:18,
 77:17, 77:24, 85:2,
 86:24, 100:14, 101:3,
 125:21, 161:17,
 164:10, 195:21
gum [10] - 27:7,
 27:10, 27:11, 27:12,
 27:13, 92:10, 92:11,
 179:10, 179:14
guy [1] - 18:6
guys [6] - 39:1,
 79:24, 142:22, 190:5,
 200:8, 203:2

H

H-E-B [2] - 121:21,
 121:22
H-U-R-D [1] - 203:23
H.E [2] - 2:8, 119:17
H.J [1] - 2:23
half [8] - 208:19,
 209:25, 215:25,
 216:8, 216:14,
 216:15, 216:17,
 216:21
halfway [1] - 122:21
HAMILTON [1] - 3:2
hand [12] - 5:19, 9:6,
 25:11, 25:12, 67:4,
 67:7, 69:15, 71:23,
 72:10, 98:8, 203:17,
 210:12
handed [3] - 9:12,
 9:13
handfeeding [1] -
 205:12
handful [3] - 38:24,
 149:5, 189:2
handle [4] - 74:3,
 217:11, 217:13,
 223:11
handled [1] - 223:10
happier [1] - 59:18
happily [2] - 12:20,
 14:21
happy [6] - 4:21,
 10:7, 17:24, 18:4,
 218:12, 218:16
hard [6] - 33:6,
 72:24, 94:4, 183:3,
 203:3, 217:7
harm [1] - 116:10
HARRIS [5] - 3:4,
 20:18, 181:23,
 201:20, 226:20
hat [2] - 83:20, 87:1
hatch [8] - 208:6,
 209:15, 211:11,
 211:21, 212:9,
 212:10, 216:5, 216:10
hatched [1] - 212:23
hatcher [1] - 212:9
hatcheries [2] -
 207:17, 217:16
hatchers [2] - 217:2,
 217:17
hatchery [12] -
 204:20, 205:12,
 207:11, 207:14,
 207:21, 211:19,
 211:20, 212:21,
 213:2, 213:12, 214:7,

214:19
hatchery's [1] -
 214:8
hatching [7] - 211:8,
 211:12, 211:14,
 212:8, 212:16, 216:9,
 217:17
heads [1] - 206:25
health [1] - 213:22
hear [4] - 10:20,
 70:8, 204:17, 228:10
heard [15] - 10:17,
 28:23, 35:1, 95:3,
 148:1, 160:23, 161:5,
 161:7, 186:11,
 192:19, 194:18,
 195:10, 209:4, 215:7
hearing [3] - 79:15,
 159:17, 207:2
hearsay [2] - 10:4,
 103:11
heat [1] - 212:7
heavily [1] - 19:13
HEB [2] - 121:23,
 121:25
Heinz [1] - 2:23
held [3] - 175:11,
 175:25, 176:3
hello [1] - 4:2
help [13] - 10:14,
 16:12, 49:16, 72:18,
 72:19, 73:22, 83:3,
 86:3, 112:3, 125:15,
 133:16, 133:24,
 182:22
helpful [3] - 97:25,
 137:18, 175:22
helps [5] - 47:11,
 106:11, 109:15,
 210:5, 218:6
hen [7] - 40:19,
 45:22, 45:24, 45:25,
 46:1, 161:4, 215:7
Hen [1] - 52:17
hen's [1] - 215:16
henhouse [1] - 44:4
henhouses [2] -
 44:4, 197:19
hens [38] - 32:11,
 32:15, 32:18, 34:1,
 34:8, 35:20, 37:10,
 37:20, 39:25, 45:15,
 45:21, 45:23, 45:25,
 53:11, 57:7, 58:20,
 59:17, 59:18, 62:3,
 70:5, 80:10, 80:20,
 80:23, 159:1, 167:4,
 168:10, 168:13,
 168:19, 168:20,
 170:20, 216:13,
 218:18, 218:20,
 218:21, 219:12,
 219:14
herein [2] - 6:12,
 204:6
heroic [1] - 183:11
heterogeneity [1] -
 76:25
hi [1] - 144:23
Hickman [1] - 122:19
Hickman's [3] -
 120:23, 121:5, 121:12
high [6] - 35:11,
 63:13, 110:21, 112:8,
 145:25, 170:5
High [1] - 3:15
higher [20] - 28:20,
 34:12, 60:20, 60:22,
 72:7, 77:15, 102:8,
 104:13, 109:11,
 109:22, 110:21,
 111:15, 156:21,
 170:12, 183:9, 188:1,
 189:10, 222:6,
 222:13, 222:19
highlight [1] - 58:8
highlighted [2] -
 42:25, 96:2
highly [8] - 28:10,
 55:24, 97:13, 101:14,
 103:5, 108:17,
 129:10, 132:19
HILL [1] - 2:16
Hillandale [6] -
 118:21, 118:25,
 120:3, 121:5, 121:13,
 122:20
hinged [1] - 29:8
Hinton [1] - 226:9
hire [1] - 18:6
historic [1] - 137:1
historically [1] -
 136:25
hit [2] - 125:6,
 193:16
hitch [1] - 42:7
hives [1] - 99:1
hold [3] - 211:23,
 211:25, 217:19
holding [2] - 203:4,
 211:25
holiday [2] - 6:5,
 226:9
home [1] - 188:17
homes [1] - 224:18
Honda [5] - 178:16,
 178:21, 178:22,
 179:2, 179:3
honest [1] - 17:18
Honor [55] - 4:3,
 4:17, 5:10, 6:10, 9:7,
 9:18, 20:11, 20:16,
 20:21, 25:11, 30:18,
 33:11, 67:22, 68:5,
 68:6, 99:23, 99:25,
 100:3, 100:5, 103:10,
 103:12, 112:10,
 113:2, 116:20, 117:6,
 117:8, 140:24,
 141:15, 142:1,
 142:21, 143:14,
 144:13, 144:16,
 144:18, 153:15,
 154:15, 155:5,
 157:10, 162:14,
 169:22, 182:1,
 200:16, 201:20,
 201:21, 201:22,
 201:24, 202:3, 202:6,
 202:12, 203:10,
 224:14, 225:24,
 227:19, 228:7, 228:12
HONORABLE [1] -
 1:12
hooked [1] - 192:7
hoops [1] - 223:22
hope [6] - 4:21, 4:23,
 139:15, 143:5,
 176:13, 224:19
hopefully [3] - 30:16,
 54:4, 132:22
hoping [2] - 69:12,
 186:3
horizontal [2] -
 33:21, 116:1
horrendous [1] -
 4:25
host [7] - 8:21, 16:2,
 36:18, 37:22, 65:9,
 82:4, 84:2
hour [6] - 21:16,
 146:2, 146:6, 146:11,
 188:6, 205:17
hourly [2] - 21:13,
 146:25
hours [8] - 116:21,
 145:5, 145:7, 145:9,
 145:13, 145:24, 147:9
house [8] - 80:9,
 80:10, 206:1, 206:6,
 206:19, 218:10,
 222:23, 223:17
housed [2] - 206:8,
 224:11
housekeeping [2] -
 203:6, 225:4
houses [8] - 205:15,
 206:1, 206:14,
 206:15, 216:3,
 216:16, 222:23,
 224:10
housing [5] - 211:7,
 216:1, 216:25,
 220:18, 221:5
huge [2] - 27:13,
 44:8
hum [7] - 43:6,
 70:18, 91:14, 148:11,
 159:6, 180:1, 187:16
human [10] - 32:1,
 47:17, 105:6, 106:25,
 107:15, 108:9,
 108:12, 108:15,
 172:4, 172:6
humidity [1] - 212:7
hundred [2] - 40:6,
 40:7
hundreds [1] - 145:7
Hurd [7] - 202:22,
 203:14, 203:23,
 203:24, 204:10,
 225:1, 226:5
HURD [1] - 204:5
Husbandry [2] -
 100:13, 101:3
Hy [4] - 2:7, 119:17,
 120:1, 120:2
Hy-Vee [4] - 2:7,
 119:17, 120:1, 120:2
Hyde [1] - 223:20
hypotheses [1] -
 19:4
hypothesis [3] -
 38:16, 135:1, 191:19
hypothetical [11] -
 38:6, 38:7, 38:8,
 94:20, 104:1, 106:7,
 106:14, 107:4,
 108:11, 160:21
hypothetically [1] -
 106:20

i.e [1] - 102:14
idea [14] - 11:14,
 11:18, 13:10, 16:22,
 37:22, 38:18, 44:22,
 62:1, 88:1, 90:9,
 142:23, 148:14,
 156:20, 222:2
identical [2] -
 199:17, 199:19
identified [15] - 21:9,
 68:17, 102:21,
 110:20, 119:10,
 119:13, 122:17,
 140:7, 163:16,
 167:10, 171:5, 197:2,
 198:14, 198:19,
 199:23
identifies [2] - 42:14,
 122:16
identify [11] - 13:19,
 68:18, 73:2, 75:10,
 76:1, 162:8, 167:16,
 167:19, 176:24,
 183:4, 183:5
identifying [1] - 75:9
idle [1] - 88:13
ignore [3] - 70:22,
 152:14, 183:14
ignored [3] - 70:9,
 70:16, 70:23
ignores [1] - 29:19
ignoring [2] - 87:13,
 152:17
Illinois [2] - 2:13,
 2:22
illustrate [2] - 84:14,
 137:22
illustrates [1] - 129:7
imagine [7] - 38:9,
 44:5, 51:8, 94:5,
 188:3, 188:11
immaterial [2] -
 188:22, 197:4
immediately [3] -
 91:24, 162:18, 195:15
impact [51] - 10:23,
 10:24, 11:22, 12:1,
 12:6, 12:18, 22:20,
 37:12, 40:13, 50:23,
 56:2, 58:14, 59:10,
 63:1, 65:5, 70:2, 70:6,
 75:5, 75:7, 77:17,
 77:19, 77:20, 90:11,
 96:7, 97:23, 104:24,
 106:6, 115:15, 116:7,
 117:11, 127:23,
 127:25, 132:1,
 136:11, 149:2,
 150:12, 152:3,
 152:17, 156:19,
 161:9, 182:19, 184:6,
 184:8, 184:13,
 184:22, 184:23,
 184:24, 185:13,
 185:17
impacted [13] -
 19:15, 32:7, 39:25,
 45:12, 70:12, 71:18,
 118:1, 128:21,
 137:19, 138:2, 140:2,
 152:9, 183:2
impacting [4] - 49:3,
 107:6, 107:7, 220:24
impacts [2] - 8:13,
 19:23

impeach [1] - 179:21
implausible [1] - 149:25
implement [1] - 164:23
implementation [4] - 70:11, 152:19, 161:1, 220:8
implemented [6] - 56:23, 71:10, 85:2, 86:24, 125:5, 192:3
implementing [1] - 125:21
implication [1] - 168:15
implications [1] - 47:23
implicitly [3] - 81:19, 81:20, 185:7
implied [1] - 110:13
imply [1] - 77:6
implying [1] - 176:8
import [1] - 130:6
important [12] - 26:20, 55:7, 65:3, 71:7, 71:12, 80:8, 103:23, 103:25, 126:10, 139:2, 209:21, 213:22
importantly [1] - 137:21
imports [1] - 106:4
impose [2] - 32:9, 80:3
imposed [13] - 39:12, 41:8, 53:9, 54:23, 56:21, 58:18, 71:6, 126:23, 150:18, 159:4, 160:19, 170:13, 195:14
impossible [1] - 44:24
improve [1] - 222:12
IN [2] - 1:1, 1:4
inartfully [1] - 51:1
Inc [13] - 2:6, 2:7, 2:7, 2:8, 2:8, 2:13, 2:14, 2:18, 2:22, 2:23, 3:7, 3:8, 3:16
incentive [2] - 126:6, 194:6
incentives [1] - 19:23
inches [7] - 53:10, 53:11, 159:17, 159:22, 160:1, 160:5, 160:14
inclement [1] - 5:4
include [17] - 30:24, 37:21, 39:11, 43:13, 44:6, 45:6, 106:4, 122:12, 135:2, 135:6, 172:4, 172:7, 172:9, 185:12, 198:7, 198:25
included [17] - 25:16, 47:25, 48:13, 49:6, 105:7, 131:25, 158:17, 183:16, 187:13, 191:7, 191:9, 198:9, 198:10, 198:11, 200:9
includes [8] - 30:25, 32:1, 75:2, 75:3, 172:1, 172:3, 175:16
including [12] - 28:21, 40:10, 49:10, 111:16, 113:8, 115:17, 116:12, 117:17, 118:11, 134:18, 143:23, 183:24
inclusion [1] - 198:14
income [5] - 12:18, 35:22, 35:23, 44:16, 64:15
incomes [1] - 44:18
inconsistent [2] - 45:19, 125:24
incorporate [1] - 127:16
increase [29] - 23:15, 26:14, 27:12, 28:6, 28:12, 29:15, 29:17, 29:18, 44:8, 45:23, 57:6, 57:7, 91:5, 91:7, 99:3, 102:15, 104:12, 106:16, 108:12, 109:10, 128:25, 129:1, 130:1, 130:17, 130:20, 130:23, 131:1, 131:4
increased [12] - 28:24, 29:2, 29:10, 43:12, 46:2, 51:3, 98:15, 108:24, 116:9, 180:6, 222:18, 223:5
increases [15] - 51:10, 51:11, 54:6, 80:1, 97:22, 98:7, 98:19, 99:5, 110:9, 110:13, 110:24, 111:2, 118:2, 118:24, 187:23
Increases [1] - 93:13
increasing [1] - 189:17
incredibly [2] - 183:11, 189:7
incubator [1] - 212:6
incubators [2] - 211:9, 212:3
independent [5] - 63:23, 73:17, 73:18, 73:20, 125:19
index [12] - 11:21, 95:10, 114:14, 114:24, 115:9, 115:12, 116:1, 123:18, 137:15, 138:1, 140:3
Indiana [21] - 6:20, 6:21, 7:8, 7:16, 7:19, 7:24, 188:4, 188:8, 205:19, 205:25, 206:16, 207:1, 207:15, 207:16, 212:19, 213:6, 214:9, 214:16
Indianapolis [1] - 205:18
indicate [6] - 50:16, 98:4, 107:14, 108:2, 108:11, 112:23
indicated [8] - 77:22, 95:8, 111:23, 124:14, 126:18, 127:18, 152:9, 195:19
indicates [15] - 40:6, 41:14, 53:17, 56:18, 63:22, 70:4, 86:6, 102:13, 108:4, 123:21, 124:24, 132:5, 132:13, 139:16, 170:5
indicating [1] - 132:15
indication [1] - 126:22
indicative [2] - 103:24, 136:10
Indicator [1] - 41:11
indicator [11] - 40:12, 40:17, 41:13, 84:15, 84:19, 84:21, 89:4, 134:10, 134:16, 135:2
indicators [10] - 41:15, 41:19, 41:22, 42:9, 42:11, 43:15, 84:22, 109:6, 135:5
indices [2] - 136:9, 136:10
indirect [1] - 84:2
individual [23] - 12:6, 15:3, 15:5, 57:4, 78:12, 115:7, 117:25, 118:17, 118:19, 126:5, 155:25, 156:4, 156:17, 168:21, 168:22, 168:23, 187:14, 187:21, 190:3, 197:7, 197:11
individuals [5] - 72:22, 148:12, 167:17, 189:3, 194:7
indoor [1] - 219:4
induced [2] - 44:9, 192:4
indulgence [1] - 142:7
industrial [12] - 7:20, 7:25, 8:2, 19:8, 19:11, 19:13, 19:18, 19:20, 19:21, 20:2, 20:3, 32:4
industries [1] - 19:21
industry [23] - 20:25, 34:9, 35:4, 35:9, 37:8, 41:16, 71:1, 79:24, 92:23, 107:23, 127:1, 129:8, 132:14, 132:21, 139:24, 151:16, 159:14, 160:1, 174:24, 190:17, 194:4, 220:9
industrywide [1] - 79:16
Indy [1] - 188:5
inelastic [17] - 27:4, 27:7, 27:23, 28:1, 28:11, 92:5, 97:13, 98:5, 101:15, 103:5, 104:7, 104:8, 104:11, 108:17, 128:24, 129:10, 188:1
inelasticity [2] - 26:23, 27:14
inexpensive [2] - 35:14, 35:17
infer [1] - 96:12
inference [1] - 32:13
influence [3] - 42:13, 43:10, 43:11
information [15] - 12:3, 24:24, 46:20, 47:8, 48:11, 102:5, 102:6, 102:10, 123:3, 128:18, 131:17, 133:25, 169:3, 197:21, 201:17
initial [8] - 17:18, 29:24, 91:17, 137:18, 160:18, 176:17, 193:15, 193:16
injured [1] - 116:6
injury [1] - 118:24
input [2] - 32:18, 59:11
inquiries [1] - 224:6
inside [1] - 218:25
insignificant [1] - 158:6
instance [4] - 128:22, 134:17, 134:18, 186:1
instances [1] - 127:24
instantaneously [1] - 47:6
instead [5] - 40:18, 43:18, 62:2, 88:1, 179:17
institutional [2] - 32:5, 36:2
instruction [1] - 123:7
integrated [3] - 209:4, 209:8, 209:17
intends [1] - 226:12
intent [2] - 127:15, 150:19
intently [1] - 213:18
interact [2] - 210:23, 221:15
interactions [1] - 221:17
intercept [3] - 49:15, 49:17, 49:20
interest [3] - 20:14, 73:17, 107:5
interested [6] - 36:14, 45:2, 55:15, 56:6, 76:7, 143:4
interesting [1] - 102:5
Internet [1] - 12:1
interpret [1] - 53:6
interpretation [1] - 72:13
interrupt [1] - 67:20
interval [4] - 85:24, 85:25, 86:2, 86:6
intervene [1] - 15:1
intimated [1] - 215:21
introduce [1] - 6:17
introduced [2] - 76:5, 165:21
intuitive [1] - 27:14
inverse [14] - 91:9, 92:21, 94:18, 96:6, 96:16, 96:18, 96:20, 96:21, 96:24, 97:16, 97:24, 129:2, 179:6, 179:7
invested [1] - 79:25
investigate [1] - 170:18

investigation [1] - 170:18
Investors [1] - 102:20
invites [1] - 11:9
invoices [1] - 112:21
invoke [1] - 68:12
involved [2] - 176:8, 190:17
involvement [1] - 224:1
irrelevant [1] - 189:8
ISE [4] - 118:21, 118:25, 121:5, 122:20
issue [4] - 77:16, 144:7, 154:20, 173:4
issues [6] - 12:5, 15:23, 78:10, 207:3, 221:14, 222:23
item [2] - 44:10, 44:21
items [3] - 43:7, 43:20, 95:14
itself [8] - 78:20, 80:21, 161:23, 163:5, 163:16, 177:25, 209:8

J

jack [4] - 38:11, 106:21, 132:18, 132:23
jagged [1] - 88:21
JAMES [1] - 3:14
JAN [1] - 3:3
January [7] - 53:21, 54:3, 65:13, 66:3, 75:14, 89:8, 130:16
JAY [1] - 3:10
Jay [1] - 144:24
job [7] - 14:23, 16:11, 61:4, 183:3, 209:24, 218:4
JOHN [1] - 2:12
join [1] - 125:8
JOSEPH [1] - 2:11
Journal [5] - 13:4, 13:5, 13:9, 13:15, 14:2
journal [10] - 11:1, 11:2, 11:6, 11:24, 13:11, 14:1, 14:7, 72:21, 74:3, 187:9
journals [3] - 13:1, 20:2, 20:4
Joy [1] - 170:23
Judge [1] - 143:2
judgment [3] - 36:3, 183:8, 227:23

judgments [1] - 183:8
July [8] - 53:13, 54:17, 65:23, 66:7, 75:14, 89:8, 101:20, 102:21
jumbo [3] - 94:12, 96:10, 107:25
jumbos [1] - 110:19
jump [5] - 126:3, 160:4, 160:7, 160:15, 160:16
jumps [1] - 46:22
June [2] - 89:8, 131:3
jurors [1] - 226:25
jury [65] - 4:15, 6:17, 7:10, 10:19, 13:10, 14:11, 18:19, 19:19, 22:11, 23:22, 24:9, 25:23, 27:8, 27:17, 28:23, 29:5, 33:10, 33:20, 35:7, 51:24, 52:8, 52:22, 60:7, 67:14, 67:17, 67:20, 69:21, 70:19, 72:19, 81:15, 82:18, 84:21, 87:21, 88:17, 90:1, 91:16, 92:14, 93:17, 95:3, 98:22, 99:8, 101:19, 112:3, 118:11, 128:14, 136:5, 137:8, 140:21, 155:5, 160:23, 178:11, 184:21, 185:4, 186:12, 191:6, 198:16, 198:17, 200:13, 204:12, 204:18, 204:25, 209:10, 210:16, 226:24
JURY [1] - 143:19
Jury [8] - 4:19, 68:3, 69:4, 141:13, 143:9, 202:17, 202:25, 224:25
Justice [2] - 14:17, 104:2

K

kAITLIN [1] - 3:5
Kathleen [1] - 228:21
kATHLEEN [1] - 1:21
keep [15] - 6:8, 10:15, 17:25, 64:10, 71:13, 110:6, 113:4, 116:21, 117:2, 223:8, 224:12, 227:1, 227:2, 228:2, 228:6

Kelley [1] - 7:8
KENNY [1] - 2:2
Kentucky [2] - 7:1, 8:4
kept [1] - 218:18
key [4] - 24:25, 32:18, 47:1, 85:22
kicked [1] - 210:2
kicking [1] - 195:21
kids [1] - 12:21
kind [33] - 5:3, 8:23, 13:22, 17:19, 17:22, 17:23, 18:24, 21:24, 21:25, 22:14, 22:15, 34:8, 35:22, 35:23, 36:1, 44:12, 48:25, 55:15, 57:12, 64:14, 64:16, 86:12, 127:19, 138:19, 140:4, 150:6, 176:9, 191:22, 206:22, 209:1, 218:3, 219:2
kinds [2] - 19:1, 78:10
KING [4] - 3:14, 225:24, 226:2, 226:7
kitchen [2] - 75:3, 191:18
knowing [1] - 216:9
knowledge [3] - 24:16, 133:24, 157:24
known [1] - 180:14
Kroger [10] - 2:6, 78:19, 78:21, 95:7, 112:4, 119:18, 120:6, 123:22, 192:11, 194:9

L

L.P [1] - 2:23
label [1] - 78:24
labor [1] - 12:18
LACEY [1] - 3:5
lack [2] - 102:2, 183:10
ladies [4] - 4:21, 5:12, 7:10, 33:19
lag [5] - 46:16, 46:17, 47:2, 47:11, 47:12
lagging [1] - 83:23
lags [6] - 47:1, 47:4, 47:13, 84:5
land [1] - 223:12
landowners [1] - 223:19
language [3] - 113:16, 134:17, 225:19
Large [2] - 94:2, 94:7

large [15] - 14:22, 25:1, 25:2, 28:12, 92:8, 96:11, 100:22, 107:25, 114:14, 138:15, 138:18, 138:23, 187:24, 190:5, 223:11
larger [8] - 29:17, 53:2, 67:2, 85:11, 85:14, 128:25, 220:17, 221:15
largest [1] - 160:4
last [14] - 5:23, 19:6, 41:2, 51:16, 54:24, 67:7, 71:24, 134:5, 203:21, 211:24, 212:8, 225:12, 225:16
late [3] - 4:7, 220:5, 222:13
lately [1] - 221:5
latter [2] - 134:25, 195:20
laughing [1] - 203:3
law [7] - 17:3, 17:6, 147:16, 150:7, 150:10, 200:1, 225:14
laws [2] - 14:18, 147:18
lawyer [1] - 150:2
lawyers [4] - 15:4, 31:10, 73:7, 190:2
Lay [1] - 119:3
lay [19] - 37:17, 37:18, 63:7, 70:24, 96:19, 99:7, 99:10, 99:11, 135:6, 187:3, 215:2, 215:3, 215:4, 215:7, 217:9, 217:12, 217:21, 222:19
layer [21] - 32:17, 34:7, 35:20, 35:24, 37:10, 37:20, 39:25, 44:7, 54:14, 56:9, 56:20, 204:20, 205:14, 206:1, 206:6, 206:19, 207:18, 216:16, 224:10
layers [6] - 33:24, 34:22, 44:9, 45:13, 49:3, 50:6
Laying [2] - 100:14, 101:4
laying [9] - 208:8, 209:1, 209:11, 210:18, 210:25, 215:1, 217:8, 218:20, 219:14
layperson [1] - 96:18
lays [1] - 45:24
lead [6] - 27:13,

28:11, 29:17, 36:15, 46:5, 137:24
leading [3] - 47:23, 48:12, 81:23
leads [5] - 53:3, 91:3, 91:6, 99:2, 128:24
learned [2] - 24:17, 84:9
learning [1] - 30:1
least [14] - 17:24, 25:7, 32:8, 61:9, 79:13, 93:3, 132:6, 149:17, 149:24, 168:25, 174:13, 177:2, 225:16, 227:10
leave [2] - 68:9, 188:14
leaves [1] - 177:20
lecturing [2] - 58:21, 82:12
led [10] - 19:12, 37:10, 38:5, 38:17, 61:5, 76:14, 99:5, 115:11, 163:18, 187:23
left [11] - 9:2, 49:13, 66:15, 66:17, 69:13, 69:15, 83:13, 91:20, 91:24, 98:18, 210:12
left-hand [2] - 69:15, 210:12
legal [8] - 15:8, 30:12, 145:19, 150:9, 173:10, 175:18, 190:15
leghorn [1] - 210:17
length [4] - 58:25, 150:23, 150:25, 152:4
less [8] - 6:23, 55:14, 116:25, 117:1, 123:23, 127:22, 205:18, 222:15
level [20] - 35:11, 52:20, 54:25, 55:4, 55:15, 61:17, 63:13, 67:9, 67:16, 75:19, 95:12, 135:4, 155:21, 168:21, 168:22, 168:23, 208:24, 213:8, 213:10, 222:24
Level [1] - 72:11
levels [3] - 47:5, 136:25, 222:12
LEVINE [53] - 3:3, 3:10, 10:4, 20:16, 103:10, 112:10, 112:13, 112:18, 112:22, 113:21, 142:10, 142:19, 144:18, 144:21,

153:20, 154:13,
154:18, 154:21,
154:23, 155:4, 155:7,
157:10, 157:12,
161:13, 162:23,
166:1, 166:2, 166:6,
166:8, 170:1, 170:16,
181:5, 181:10,
181:21, 200:19,
200:22, 201:18,
202:12, 202:22,
203:6, 203:8, 203:12,
203:14, 204:9, 210:9,
210:11, 224:14,
226:14, 227:20,
227:22, 227:25,
228:3, 228:8
Levine [6] - 144:24,
185:6, 188:24,
191:10, 193:14, 204:4
liable [1] - 147:14
liaison [1] - 206:25
lies [2] - 83:2, 85:23
life [4] - 215:10,
215:12, 215:16,
222:10
lifespan [1] - 215:19
likely [4] - 56:18,
127:7, 152:9, 188:9
likening [1] - 188:25
limit [1] - 80:19
limitations [1] -
83:10
limiting [1] - 77:13
linchpin [1] - 18:2
line [37] - 21:21,
34:2, 34:19, 34:20,
35:2, 36:7, 60:4, 60:5,
60:6, 60:15, 61:8,
61:15, 61:20, 71:24,
82:22, 83:3, 83:4,
83:5, 83:13, 84:12,
85:15, 85:21, 85:25,
94:6, 95:14, 114:16,
116:2, 144:2, 163:11,
169:13, 190:25,
196:20, 196:22
Linear [4] - 33:9,
33:16, 36:11, 60:1
linear [10] - 34:1,
37:1, 37:2, 37:3, 37:4,
60:17, 61:18, 61:20,
81:4
lined [1] - 216:3
lines [16] - 34:19,
34:24, 37:3, 58:11,
58:20, 60:5, 61:8,
61:11, 61:12, 61:14,
81:5, 85:18, 86:10,
86:11, 139:11, 139:13

link [5] - 32:5, 41:15,
115:19, 115:22,
115:23
linked [3] - 41:25,
81:16, 95:10
liquid [3] - 96:11,
110:22, 111:7
list [2] - 176:22,
186:11
listed [6] - 9:16,
43:7, 43:20, 119:23,
144:5, 200:7
listen [1] - 119:3
listing [1] - 95:14
literature [2] -
183:20, 184:17
LITIGATION [1] - 1:4
litter [1] - 221:12
live [8] - 204:15,
204:16, 204:19,
205:11, 207:12,
207:24, 208:19,
208:21
liveability [1] -
216:10
lived [1] - 148:23
living [4] - 6:18, 7:1,
51:11, 137:15
LLC [1] - 2:7
LLP [4] - 2:15, 3:2,
3:9, 3:13
located [2] - 207:18,
212:19
location [1] - 205:20
locations [1] -
207:19
Log [1] - 63:7
log [2] - 66:18, 69:16
Logan [1] - 3:6
logistic [2] - 209:23,
218:4
logistical [1] - 208:4
Lois [1] - 220:5
Lone [1] - 214:3
long-term [2] -
46:24, 213:22
look [69] - 8:12, 15:7,
17:25, 18:4, 24:24,
26:18, 29:19, 32:3,
32:16, 32:17, 33:6,
34:1, 34:2, 34:5,
34:11, 34:14, 38:4,
39:5, 46:8, 51:21,
54:5, 58:24, 59:23,
60:15, 61:1, 64:5,
70:25, 71:22, 73:1,
74:7, 77:1, 82:1,
84:10, 84:25, 88:19,
96:25, 97:1, 99:15,
102:24, 104:19,

105:15, 105:18,
111:21, 114:10,
114:22, 115:24,
123:20, 124:10,
125:9, 136:11,
137:16, 150:8, 156:4,
166:3, 173:19,
180:13, 181:17,
193:2, 193:13,
193:15, 197:18,
203:24, 217:8,
218:16, 222:9, 224:8,
224:10
looked [16] - 12:18,
24:21, 24:23, 25:2,
31:21, 51:19, 61:20,
85:5, 92:22, 99:20,
107:21, 112:21,
127:15, 136:15,
147:6, 156:2
looking [37] - 31:24,
34:15, 36:20, 36:23,
42:20, 46:11, 58:11,
60:8, 60:10, 60:14,
62:1, 62:20, 62:25,
63:2, 69:14, 70:7,
75:12, 80:24, 82:19,
94:11, 97:6, 97:7,
100:15, 106:6, 107:9,
111:1, 121:1, 137:23,
174:18, 192:20,
198:2, 209:24,
215:25, 219:3, 222:11
looks [6] - 19:21,
32:23, 32:24, 61:9,
155:17, 204:1
lose [5] - 4:12, 80:1,
94:24, 104:12, 217:13
losing [1] - 46:1
loss [1] - 131:17
lovely [2] - 4:22, 4:24
low [4] - 53:16,
110:21, 112:8, 136:25
lower [11] - 26:4,
53:8, 54:12, 54:14,
54:22, 156:21,
156:24, 160:1,
187:25, 191:20, 218:6
lunch [3] - 141:5,
141:14, 142:3
Luncheon [1] -
141:16
luncheon [1] -
141:17
lunchtime [1] -
141:11

M

machine [2] - 27:10,

92:11
macroeconomic [1]
- 49:1
macroeconomy [1] -
49:2
Main [1] - 57:19
main [14] - 58:1,
62:25, 63:6, 66:17,
98:20, 155:10,
155:24, 180:17,
181:6, 181:11,
191:17, 206:24,
207:23
Maine [10] - 118:20,
118:25, 120:7,
120:14, 120:23,
121:4, 121:12,
121:17, 122:1, 122:19
maintain [1] - 222:12
maintained [1] -
127:8
major [1] - 143:7
majority [1] - 218:21
makers [1] - 15:6
males [3] - 210:19,
210:23, 213:1
manage [2] - 221:7,
221:13
Management [3] -
13:9, 13:15, 14:3
management [2] -
208:14, 209:2
management's [1] -
218:12
management-type
[1] - 209:2
manager [4] -
205:10, 205:21,
206:1, 206:7
managerial [2] -
12:19, 12:21
managers [2] -
206:19, 206:23
mandate [1] - 161:15
mandated [1] - 161:3
mandating [1] -
161:17
manner [9] - 76:13,
147:16, 185:21,
186:2, 186:20, 189:7,
194:7, 208:9, 223:10
MANNIX [1] - 2:16
manuals [1] - 222:8
manure [2] - 221:12,
223:9
map [1] - 77:1
marathon [1] - 4:8
March [1] - 89:8
MARCUS [1] - 2:15
market [72] - 10:24,

12:7, 17:21, 26:3,
26:19, 27:15, 27:17,
27:18, 27:24, 28:3,
29:12, 31:20, 32:21,
39:2, 39:6, 57:3,
76:13, 76:19, 76:20,
78:13, 78:14, 90:12,
90:14, 95:11, 95:18,
103:17, 103:22,
104:4, 104:14,
104:15, 104:19,
104:21, 104:25,
105:2, 105:5, 105:8,
105:11, 106:5, 106:6,
106:12, 106:13,
106:19, 106:23,
106:24, 107:10,
107:12, 107:14,
108:2, 108:15,
108:19, 118:2,
124:23, 129:19,
132:16, 136:24,
154:10, 156:3,
168:12, 174:12,
178:17, 189:22,
193:7, 194:7, 195:15,
197:25, 198:1, 198:6,
217:24
Market [2] - 1:22,
105:19
Marketers [1] - 3:8
Marketing [1] - 13:5
marketing [2] - 78:3,
78:9
marketplace [2] -
81:23, 185:3
markets [13] - 8:13,
10:25, 12:8, 15:24,
16:1, 16:14, 17:20,
19:24, 49:12, 77:3,
77:4, 78:20, 132:19
Markets [1] - 2:13
marketwide [1] -
156:19
Marshall [1] - 226:8
mass [3] - 78:15,
125:6, 194:3
master's [1] - 7:13
match [1] - 66:25
matched [1] - 180:18
matching [1] -
181:13
material [3] - 10:8,
70:2, 187:8
materialize [1] -
84:24
materially [3] - 65:5,
153:19, 174:10
materials [2] - 24:12,
24:13

math ^[11] - 15:14, 175:24, 176:6, 176:7, 176:10, 176:11, 176:12, 177:19, 177:21, 177:24
mathematical ^[2] - 37:18, 73:20
mathematics ^[1] - 41:20
matter ^[40] - 26:9, 29:7, 32:17, 46:19, 48:1, 56:11, 56:16, 70:5, 77:13, 78:24, 79:1, 79:14, 85:1, 89:16, 95:2, 102:5, 107:24, 108:8, 126:25, 137:18, 137:20, 144:9, 144:25, 146:9, 146:10, 147:14, 156:9, 156:10, 175:2, 175:20, 184:1, 187:20, 190:2, 194:6, 200:1, 200:3, 200:4, 203:6, 216:20, 228:18
matters ^[6] - 7:18, 11:18, 30:13, 44:5, 145:19, 187:21
mature ^[2] - 210:21, 215:1
maximizing ^[1] - 104:11
MDL ^[1] - 1:4
mean ^[81] - 18:20, 19:20, 22:1, 24:23, 26:7, 26:23, 27:17, 29:25, 30:1, 31:2, 34:6, 35:7, 41:13, 43:8, 44:1, 44:11, 44:23, 46:13, 46:16, 49:18, 51:7, 56:4, 57:23, 58:2, 60:21, 60:22, 63:8, 64:3, 64:5, 66:24, 70:20, 72:4, 72:19, 75:22, 76:20, 76:25, 77:6, 78:14, 79:13, 79:18, 79:20, 85:14, 94:1, 94:19, 99:11, 108:13, 111:19, 123:4, 123:5, 130:7, 142:6, 142:12, 147:7, 147:25, 149:1, 150:2, 152:5, 152:7, 155:17, 160:18, 167:24, 173:20, 176:12, 179:21, 182:24, 184:21, 187:4, 188:21, 195:10, 195:14, 195:15, 196:6, 196:8, 206:7, 206:19, 211:11, 215:24, 221:19, 227:1, 227:15
meaning ^[6] - 52:12, 52:15, 52:17, 99:8, 215:13, 227:3
means ^[50] - 4:10, 7:20, 8:12, 27:2, 43:15, 43:16, 44:22, 47:12, 47:18, 48:22, 53:7, 55:18, 57:6, 67:15, 70:21, 72:5, 75:24, 75:25, 76:1, 80:10, 86:14, 88:18, 89:24, 92:5, 97:12, 97:13, 97:18, 99:10, 104:8, 108:14, 114:16, 125:3, 142:11, 163:17, 175:10, 176:2, 184:23, 185:4, 185:15, 185:24, 186:12, 188:9, 192:9, 192:11, 204:18, 209:10, 209:17, 210:16, 224:22
meant ^[4] - 55:3, 89:21, 196:5, 198:18
measurable ^[6] - 133:2, 133:8, 133:13, 133:17, 133:19, 133:21
measure ^[18] - 11:22, 26:25, 44:16, 49:1, 49:5, 63:18, 81:7, 87:8, 87:10, 90:9, 95:11, 127:25, 129:21, 133:21, 137:13, 178:12, 189:21
measured ^[3] - 50:21, 197:7, 197:11
measurement ^[2] - 115:15, 132:1
measures ^[21] - 22:15, 47:8, 48:25, 87:5, 91:9, 127:18, 131:19, 131:21, 131:25, 132:9, 133:2, 133:7, 148:20, 152:8, 152:18, 159:5, 182:13, 182:17, 184:2, 184:5, 186:6
measuring ^[3] - 111:14, 117:11, 186:15
mechanical ^[1] - 1:25
mechanism ^[8] - 22:21, 56:23, 126:7, 126:10, 126:13, 127:4, 127:5, 193:9
mechanisms ^[2] - 126:13, 132:18
mediate ^[1] - 13:22
Medium ^[1] - 123:13
medium ^[2] - 107:25, 110:19
meet ^[1] - 134:2
meetings ^[5] - 148:8, 148:12, 148:13, 164:6, 192:3
member ^[4] - 176:4, 200:4, 201:6, 201:13
members ^[8] - 4:12, 102:7, 124:13, 126:11, 156:15, 173:11, 174:6
memorable ^[1] - 157:21
memory ^[2] - 10:14, 30:3
Mench ^[3] - 170:23, 171:8, 171:12
mention ^[1] - 192:16
mentioned ^[18] - 14:10, 14:13, 46:12, 52:24, 68:18, 68:19, 70:15, 84:18, 91:13, 159:12, 159:13, 163:24, 185:8, 185:10, 191:13, 192:18
mentioning ^[1] - 209:23
menu ^[1] - 48:8
MEOLA ^[1] - 3:5
merger ^[1] - 15:1
mergers ^[1] - 14:19
message ^[1] - 4:7
met ^[4] - 38:15, 38:25, 134:3, 196:4
method ^[2] - 39:4, 80:9
methodologies ^[1] - 13:20
methodology ^[6] - 59:16, 111:5, 116:14, 129:1, 133:9, 183:14
methods ^[4] - 11:4, 65:9, 152:11, 183:1
metrics ^[1] - 215:8
Miami ^[1] - 2:6
Michael ^[12] - 4:16, 5:11, 5:25, 20:12, 120:3, 120:7, 120:14, 120:17, 120:23, 121:5, 122:20, 193:18
MICHAEL ^[2] - 2:4, 6:11
Michigan ^[2] - 2:21, 101:2
microeconomic ^[2] - 7:21, 8:2
microeconomics ^[1] - 8:3
microeconomist ^[1] - 7:20
mid-'70s ^[1] - 220:11
middle ^[1] - 97:7
midlevel ^[1] - 209:1
Midwest ^[8] - 94:3, 94:7, 114:14, 120:7, 122:20, 138:15, 138:18, 138:23
might ^[50] - 7:3, 29:15, 35:15, 35:19, 37:13, 38:24, 42:23, 44:5, 50:5, 56:5, 59:23, 65:3, 66:14, 70:6, 71:18, 75:5, 75:9, 77:8, 80:2, 81:21, 83:21, 89:22, 110:1, 112:3, 114:7, 116:16, 127:10, 128:7, 131:20, 134:8, 137:24, 142:7, 148:7, 150:10, 156:17, 167:17, 168:8, 169:2, 169:9, 169:14, 183:9, 184:11, 185:17, 195:18, 216:21, 217:10, 226:17, 226:25, 227:7
Mike ^[2] - 6:19, 182:6
mileage ^[1] - 99:11
mill ^[1] - 209:1
million ^[4] - 219:13, 219:14, 219:20
millions ^[1] - 33:24
mills ^[1] - 209:17
mind ^[12] - 17:25, 71:13, 71:22, 78:4, 139:6, 153:18, 177:22, 189:9, 190:14, 190:16, 192:9, 200:6
minded ^[1] - 225:22
mine ^[1] - 31:6
Minimum ^[1] - 52:17
minimum ^[2] - 40:19, 53:10
minus ^[13] - 97:12, 99:14, 100:25, 108:10, 115:8, 128:23, 130:11, 175:13, 177:25, 178:3, 180:16
minute ^[3] - 131:20, 202:4, 202:9
minutes ^[4] - 67:24, 116:25, 202:6, 202:14
miracles ^[1] - 34:5
mirrored ^[1] - 188:5
mischaracterization ^[1] - 161:25
misheard ^[1] - 194:20
misleading ^[2] - 16:2, 48:12
missed ^[2] - 4:5, 121:21
mission ^[1] - 207:24
misspecified ^[1] - 48:3
misspecify ^[1] - 184:11
misspelled ^[1] - 107:2
mistake ^[1] - 55:19
mistaken ^[1] - 96:3
mistakes ^[1] - 22:1
mix ^[2] - 48:9, 62:23
mixes ^[1] - 221:12
Moark ^[4] - 120:8, 120:23, 121:5, 122:21
Model ^[1] - 82:15
model ^[122] - 37:11, 37:15, 37:21, 37:23, 37:24, 38:2, 38:3, 38:19, 39:5, 39:8, 39:10, 39:11, 39:21, 42:15, 43:22, 44:13, 44:23, 44:25, 45:17, 46:6, 47:19, 47:23, 48:3, 50:2, 53:22, 55:24, 56:1, 57:13, 61:19, 61:22, 62:5, 63:2, 63:14, 63:19, 63:21, 63:22, 64:24, 65:16, 65:20, 65:25, 66:3, 66:8, 66:11, 70:20, 73:1, 73:20, 74:7, 74:13, 74:14, 74:23, 81:12, 81:13, 81:15, 81:24, 83:9, 83:10, 83:11, 83:12, 83:14, 83:17, 83:22, 84:1, 84:8, 84:22, 85:8, 86:7, 86:18, 87:5, 87:10, 87:15, 88:2, 88:16, 93:7, 95:23, 96:19, 102:3, 102:25, 109:4, 127:16, 132:2, 133:18, 134:15, 134:20, 135:4, 135:10, 139:3, 139:16, 150:23, 150:24, 151:1,

151:22, 152:16,
152:21, 153:24,
155:19, 172:1,
172:17, 180:3,
180:11, 180:17,
182:24, 183:18,
183:24, 184:12,
185:2, 185:5, 185:8,
185:11, 186:8,
187:10, 191:3, 191:8,
191:9, 191:18, 192:15
modeling [2] - 47:24,
55:20
models [21] - 38:1,
48:13, 52:23, 62:22,
73:23, 73:24, 74:2,
74:4, 74:8, 74:9, 81:2,
81:16, 136:19,
155:23, 184:19,
184:20, 186:14,
191:12, 195:5, 195:6
modern [1] - 186:16
MOIRA [1] - 2:16
molt [5] - 215:10,
215:12, 215:15,
215:17
molted [1] - 215:14
moment [10] - 9:5,
9:6, 14:11, 25:11,
100:1, 122:19,
131:19, 189:15,
190:20, 227:13
money [5] - 12:22,
79:25, 80:2, 132:17,
147:3
monitor [1] - 126:10
monitoring [3] -
125:5, 127:1, 223:1
monopolist [6] -
104:1, 106:8, 106:14,
106:20, 108:11
monopolize [1] -
198:2
monopolized [2] -
106:19, 197:25
Monroe [1] - 2:12
month [10] - 42:7,
47:2, 47:4, 89:6,
129:22, 131:8,
148:24, 149:2, 149:3,
149:8
monthly [16] - 49:15,
49:21, 64:18, 84:6,
88:14, 89:1, 89:3,
126:17, 126:24,
163:23, 163:25,
164:12, 164:25,
165:4, 165:13, 166:16
months [6] - 9:1,
40:1, 40:3, 47:3,

128:17, 129:11
morning [9] - 4:3,
4:21, 6:1, 6:16, 152:5,
152:10, 185:10,
188:17, 191:13
MORRIS [2] - 3:9,
3:13
mortality [4] - 167:4,
222:7, 222:9, 222:14
Moscow [1] - 8:5
most [5] - 14:21,
20:3, 83:22, 191:14,
228:1
motives [1] - 150:20
move [14] - 7:2,
26:22, 39:17, 72:17,
81:2, 89:22, 103:12,
104:14, 123:24,
147:11, 182:10,
187:4, 210:22, 217:15
moved [5] - 69:11,
205:19, 205:25,
206:21, 212:9
movements [1] -
45:7
moves [2] - 217:9,
227:22
moving [7] - 10:15,
110:6, 113:4, 116:22,
205:14, 208:8, 224:14
MR [174] - 4:3, 4:13,
4:16, 5:10, 6:10, 6:15,
9:7, 9:9, 9:10, 9:18,
9:20, 10:2, 10:4, 10:7,
10:9, 10:12, 20:11,
20:16, 20:18, 20:21,
20:22, 25:10, 25:14,
25:15, 30:18, 30:20,
33:1, 33:4, 33:10,
33:13, 33:14, 39:17,
39:19, 42:17, 42:19,
62:7, 62:8, 62:17,
62:19, 67:22, 68:5,
68:10, 68:19, 68:22,
68:25, 69:8, 69:9,
93:10, 93:11, 99:22,
100:3, 100:7, 100:8,
101:16, 101:17,
102:18, 102:19,
103:10, 103:12,
103:14, 103:15,
112:10, 112:13,
112:18, 112:22,
113:1, 113:4, 113:5,
113:21, 114:3, 114:7,
114:20, 116:20,
116:24, 117:2, 117:6,
117:8, 117:9, 118:4,
118:6, 122:5, 122:7,
123:10, 123:11,

124:3, 126:19,
126:20, 128:7, 128:8,
140:24, 141:15,
141:22, 142:1, 142:6,
142:10, 142:15,
142:18, 142:19,
142:21, 143:14,
143:15, 143:18,
143:20, 144:12,
144:16, 144:18,
144:21, 153:6,
153:20, 154:12,
154:13, 154:15,
154:18, 154:21,
154:23, 155:4, 155:7,
157:10, 157:12,
161:13, 162:14,
162:18, 162:22,
162:23, 166:1, 166:2,
166:6, 166:8, 169:22,
169:24, 170:1,
170:16, 181:5, 181:8,
181:10, 181:21,
181:23, 182:1, 182:3,
199:6, 199:12,
200:16, 200:19,
200:22, 201:18,
201:20, 201:22,
202:3, 202:6, 202:12,
202:20, 202:22,
203:6, 203:8, 203:10,
203:12, 203:14,
204:9, 210:9, 210:11,
224:14, 225:20,
225:24, 226:2, 226:7,
226:20, 227:11,
227:19, 227:20,
227:22, 227:25,
228:3, 228:7, 228:12
MS [5] - 20:17,
181:24, 201:21,
226:14, 228:8
must [2] - 161:19,
164:23
mysterious [1] -
48:23

N

NACHWALTER [1] -
2:2
name [8] - 5:23,
5:25, 6:19, 144:24,
170:23, 203:21
named [1] - 119:23
names [7] - 122:3,
122:4, 122:25, 123:6,
171:1, 171:11, 173:22
narrow [1] - 174:1
nasty [1] - 202:10

nation's [9] - 174:21,
175:9, 175:10,
175:11, 175:25,
176:2, 176:3, 177:6,
201:3
National [5] - 8:20,
120:8, 120:24, 121:6,
122:21
nature [8] - 34:9,
35:3, 35:8, 76:12,
76:13, 80:21, 210:4,
223:3
nauseam [1] - 70:13
nearest [1] - 221:20
necessarily [1] -
185:11
need [22] - 4:6, 4:11,
10:14, 30:15, 46:12,
79:24, 94:15, 94:16,
106:7, 193:19,
201:17, 202:18,
209:25, 213:15,
216:4, 216:5, 216:14,
216:17, 217:1,
222:25, 225:11, 226:7
needed [1] - 131:18
needing [1] - 50:7
needs [3] - 202:14,
211:7, 211:21
negative [10] - 66:21,
101:8, 101:9, 102:13,
129:24, 147:24,
154:4, 154:5, 154:20,
221:16
neighboring [1] -
223:18
NERA [16] - 8:18,
8:19, 8:25, 9:1, 21:9,
21:10, 21:16, 21:17,
21:24, 22:4, 146:7,
146:14, 146:20,
146:22
never [5] - 143:7,
167:10, 169:1,
172:24, 179:21
nevertheless [1] -
75:18
new [4] - 30:1,
106:20, 107:1, 223:20
New [1] - 8:5
Newey-West [3] -
186:21, 187:1, 187:2
newsletter [2] -
101:18, 102:11
newspaper [1] -
188:16
newspeople [1] - 5:2
Newton [1] - 206:15
next [22] - 4:15, 4:17,
27:16, 37:6, 40:22,

43:25, 44:10, 44:21,
47:14, 89:16, 96:2,
96:4, 114:21, 115:2,
115:3, 125:13,
138:16, 153:13,
188:17, 194:22,
202:21, 213:4
nice [6] - 4:4, 6:4,
83:11, 184:9, 227:18,
228:11
night [2] - 206:10,
206:13
nine [6] - 62:21,
65:7, 75:2, 180:23,
195:6, 208:23
NO [1] - 1:4
nobody [3] - 4:24,
190:9, 190:11
non [8] - 77:11,
154:2, 154:8, 154:25,
167:22, 167:25,
193:20, 197:12
non-certified [7] -
77:11, 154:2, 154:8,
154:25, 167:22,
167:25, 197:12
non-UEP [1] - 193:20
nonetheless [1] -
186:1
nonexpert [1] -
226:6
nonlinear [1] -
183:23
nonsensical [2] -
135:12, 135:13
nontestifying [1] -
68:15
nontransitory [1] -
106:17
noon [1] - 134:4
Norco [2] - 121:6,
122:21
normal [2] - 11:9,
222:9
North [2] - 213:7,
223:20
north [1] - 188:6
northern [4] -
205:19, 205:25,
207:1, 214:16
note [6] - 42:2,
45:14, 61:7, 66:15,
66:17, 75:18
Notes [1] - 195:1
nothing [10] - 5:3,
5:15, 79:15, 139:16,
165:8, 181:21,
181:23, 181:24,
192:10, 197:24
notice [5] - 34:11,

60:18, 60:25, 131:7,
139:14
notification [1] -
223:18
notion [1] - 27:14
Notre [1] - 202:1
November [1] -
100:14
Number [3] - 33:7,
36:11, 125:13
number [64] - 10:22,
10:23, 12:16, 14:23,
27:13, 31:25, 32:11,
33:24, 33:25, 34:7,
34:12, 34:13, 34:22,
35:20, 37:10, 37:20,
39:25, 45:13, 46:3,
49:3, 49:18, 49:23,
56:9, 56:12, 57:6,
57:7, 58:20, 59:9,
59:10, 60:4, 61:25,
62:2, 63:17, 64:5,
65:10, 66:21, 66:22,
70:2, 72:1, 72:5, 73:9,
73:19, 80:19, 90:21,
90:24, 92:18, 97:9,
97:16, 102:2, 102:9,
103:24, 107:14,
113:13, 122:16,
125:20, 149:19,
158:24, 174:9,
174:10, 187:24,
199:8, 222:16
numbers [18] -
11:22, 53:5, 54:5,
54:9, 55:5, 56:24,
57:1, 63:16, 66:24,
75:5, 75:6, 75:8, 99:9,
111:4, 124:21,
159:18, 175:14, 201:9
NW [1] - 3:11

O

o'clock [1] - 141:6
Oakdell [2] - 121:6,
122:22
Obama [1] - 15:21
object [2] - 20:16,
113:21
objection [5] - 10:4,
20:17, 20:18, 103:10,
112:25
observation [1] -
85:23
observations [1] -
127:18
observe [10] - 63:23,
85:1, 88:25, 131:14,
139:24, 150:1, 152:7,

170:13, 191:15,
195:14
observed [7] - 42:24,
44:7, 60:12, 84:11,
115:19, 118:2, 168:11
observing [1] - 54:6
obstacles [1] -
223:24
obviously [4] -
19:15, 142:12,
222:22, 223:9
occasion [1] -
116:17
occasionally [1] -
224:6
occur [3] - 56:14,
56:17, 56:19
occurred [1] - 184:5
occurring [4] -
88:22, 127:19,
127:22, 191:16
occurs [3] - 195:2,
226:22, 226:24
October [5] - 128:22,
129:22, 130:25,
131:8, 131:11
OF [2] - 1:2, 1:15
offer [6] - 9:18, 10:2,
10:5, 20:11, 219:6,
219:9
offered [2] - 134:6,
147:20
offering [3] - 141:1,
142:17, 148:3
official [1] - 1:21
Official [1] - 228:21
offset [7] - 29:12,
32:13, 56:2, 57:8,
104:13, 189:4, 190:8
offsite [1] - 211:16
often [5] - 72:16,
107:2, 131:17,
204:17, 214:10
OH [1] - 3:16
Ohio [1] - 122:22
old [5] - 42:7, 208:6,
209:15, 210:18,
213:11
older [1] - 211:22
Omega-3 [1] -
172:13
on-site [1] - 223:11
once [18] - 11:2,
44:22, 57:22, 73:3,
78:15, 126:5, 192:6,
192:7, 193:8, 194:3,
197:17, 207:2, 212:4,
212:23, 213:14,
224:19
one [114] - 2:17, 5:1,

5:2, 16:18, 17:9, 19:1,
19:2, 20:23, 21:23,
22:14, 22:17, 27:19,
29:19, 33:23, 34:19,
37:19, 38:14, 40:18,
40:25, 43:2, 43:3,
43:21, 44:14, 45:25,
47:14, 48:6, 53:15,
57:17, 58:3, 59:16,
61:8, 64:1, 64:13,
72:21, 73:6, 73:7,
79:21, 80:6, 80:11,
80:14, 81:21, 90:17,
93:19, 94:11, 98:2,
98:14, 99:4, 99:6,
100:22, 101:19,
103:25, 108:3, 110:3,
110:13, 111:16,
113:7, 113:13,
115:16, 123:21,
127:19, 129:3,
129:15, 131:21,
132:10, 134:16,
134:17, 134:18,
134:25, 135:1,
136:11, 138:10,
138:11, 138:16,
138:19, 141:22,
142:2, 142:3, 142:8,
143:16, 157:19,
160:19, 168:2, 169:3,
177:22, 180:16,
181:15, 184:12,
187:3, 188:17,
188:18, 191:13,
191:23, 192:23,
193:21, 195:3,
196:11, 197:3,
198:15, 198:21,
198:23, 199:2,
199:15, 199:17,
203:6, 206:24,
212:17, 212:21,
214:3, 217:18, 223:8,
225:18, 227:20
one's [2] - 136:11,
213:10
ones [7] - 41:20,
41:22, 41:24, 139:20,
140:8, 149:10, 176:24
ongoing [1] - 30:1
onsite [2] - 211:18,
223:3
oops [1] - 110:3
open [2] - 17:25,
225:22
open-minded [1] -
225:22
opened [1] - 4:1
opening [4] - 5:6,

137:9, 210:6, 217:19
operating [1] - 44:4
operations [1] - 57:5
opinion [44] - 25:21,
25:24, 73:25, 79:8,
79:13, 80:22, 80:24,
81:1, 105:1, 105:3,
105:4, 105:5, 105:10,
105:13, 105:17,
112:13, 113:23,
119:3, 119:5, 119:7,
119:12, 120:6,
120:12, 120:16,
120:21, 121:2,
121:10, 121:16,
121:23, 125:4, 132:6,
147:13, 147:20,
148:3, 158:3, 158:13,
158:15, 159:6,
161:25, 187:8,
192:13, 195:7, 201:8
opinions [18] -
20:24, 23:8, 23:11,
23:20, 23:21, 23:23,
24:7, 24:10, 24:14,
25:8, 27:22, 28:16,
30:12, 31:16, 73:24,
114:1, 140:20, 200:12
opportunities [2] -
77:5, 220:17
opportunity [4] -
76:21, 210:4, 210:20,
218:25
opposed [2] - 4:8,
204:2
optimistic [1] -
142:22
order [10] - 5:15,
15:13, 45:24, 80:8,
80:12, 171:15, 174:5,
174:7, 211:6, 214:10
ordering [1] - 217:21
organic [1] - 172:11
organization [13] -
7:21, 7:25, 8:2, 19:9,
19:12, 19:13, 19:18,
19:20, 19:21, 19:23,
20:2, 20:3, 32:4
organized [2] - 19:22
orient [2] - 57:22,
199:7
original [1] - 4:13
originally [2] - 18:3,
173:23
otherwise [11] -
10:15, 26:4, 26:6,
26:7, 36:24, 79:23,
88:24, 129:9, 172:16,
179:24, 209:3
ourselves [1] - 199:7

output [78] - 22:17,
22:20, 22:23, 23:4,
25:19, 26:3, 26:14,
28:11, 29:10, 29:12,
29:14, 29:18, 29:19,
29:20, 31:17, 31:20,
32:21, 39:2, 39:3,
50:4, 50:10, 53:18,
55:12, 56:7, 56:8,
56:9, 70:10, 70:12,
70:14, 71:18, 76:14,
90:11, 91:10, 96:24,
97:17, 98:12, 98:16,
98:24, 99:2, 99:5,
102:8, 108:24, 109:5,
109:10, 110:11,
118:23, 119:1, 126:4,
128:23, 128:24,
129:4, 132:11,
132:15, 133:2, 133:6,
150:5, 152:4, 156:16,
156:17, 159:7, 183:3,
184:24, 187:24,
187:25, 188:22,
189:12, 189:13,
189:22, 190:5,
190:11, 190:19,
191:16, 191:20,
198:5, 198:6, 200:5,
201:10
outside [5] - 85:24,
213:10, 213:12,
217:24, 219:5
overall [14] - 29:9,
46:2, 57:7, 95:18,
97:1, 97:4, 97:18,
98:1, 98:17, 99:8,
187:24, 187:25, 218:6
overcharged [11] -
119:9, 119:12, 120:2,
120:6, 120:12,
120:16, 120:22,
121:3, 121:10,
121:16, 121:25
overlap [2] - 86:8,
86:11
overlaps [1] - 86:12
overnight [1] -
224:17
overpaid [1] - 119:6
overpayment [1] -
117:11
overpredicting [1] -
186:19
oversaw [1] - 15:24
oversight [1] - 16:1
overstated [1] -
58:14
overturn [1] - 73:4
own [11] - 11:7, 29:2,

30:22, 31:1, 31:2,
57:6, 178:9, 196:7,
198:2, 209:12, 209:17
owned [9] - 178:6,
178:8, 178:12,
178:16, 178:19,
178:24, 179:3,
179:12, 179:16
owner [1] - 206:5
Oxford [1] - 2:17

P

P.A [1] - 2:2
P.C [1] - 2:20
PA [4] - 1:7, 1:23,
2:18, 3:7
Pacific [1] - 2:8
packed [2] - 224:9
packet [1] - 33:2
page [16] - 157:25,
162:2, 163:8, 164:18,
166:4, 169:11,
176:17, 190:20,
190:22, 190:24,
194:11, 194:14,
196:14, 196:16,
196:20, 227:7
paid [16] - 28:20,
51:15, 96:8, 108:23,
109:11, 109:22,
111:15, 113:7,
113:12, 115:16,
115:20, 116:8,
137:19, 179:24,
189:10, 225:14
pain [1] - 202:5
pandemic [1] - 80:19
paper [13] - 9:15,
11:3, 11:4, 11:5, 11:8,
11:9, 11:10, 13:18,
13:21, 14:1, 100:19,
101:1, 184:9
papers [5] - 11:24,
20:1, 20:4, 72:22,
74:3
paperwork [1] -
223:4
paragraph [4] -
164:18, 164:20,
176:14, 176:16
parameters [2] -
83:12, 88:4
pardon [1] - 224:9
paren [2] - 69:16,
69:17
parent [1] - 214:13
parents [1] - 188:16
parsimonious [9] -

44:13, 47:20, 47:22,
48:6, 53:1, 53:3, 58:4,
72:18, 73:1
part [35] - 34:3, 34:6,
112:8, 126:23,
131:22, 134:14,
142:13, 150:21,
152:15, 152:25,
153:13, 157:1,
169:16, 171:6,
175:12, 175:15,
177:20, 183:11,
188:21, 190:14,
190:15, 190:16,
190:17, 191:8, 191:9,
193:10, 195:19,
195:20, 200:6,
207:11, 207:25,
209:23, 211:13,
218:4, 221:1
participants [1] -
193:7
participate [1] -
193:24
participated [5] -
173:11, 190:13,
199:24, 201:10,
201:11
participates [1] -
189:24
participating [2] -
190:11, 190:12
particular [13] -
64:11, 78:18, 83:17,
91:8, 94:18, 95:1,
107:13, 115:24,
139:13, 174:6,
175:20, 190:2, 213:12
particularly [1] -
30:3
parts [1] - 88:16
party [4] - 175:17,
188:7, 189:25, 190:10
pass [1] - 140:24
passage [2] - 101:7,
102:10
passages [1] -
196:20
passed [1] - 15:21
past [4] - 19:11,
19:16, 84:9, 223:5
pathetic [1] - 226:22
PATRICK [1] - 2:20
pattern [7] - 34:16,
38:18, 42:24, 61:6,
137:17, 139:10
patterns [3] - 19:5,
45:7, 88:22
PATTON [1] - 2:4
PAUL [1] - 2:10

pay [12] - 12:2, 12:8,
24:2, 28:14, 28:15,
48:16, 90:12, 95:6,
95:7, 136:9, 171:11,
188:1
paying [3] - 12:20,
115:7, 123:22
pecking [3] - 80:7,
80:12, 221:14
peer [9] - 10:17,
10:19, 10:21, 11:11,
11:19, 12:24, 13:21,
20:2, 20:4
peer-review [1] -
20:4
peer-reviewed [7] -
10:17, 10:19, 10:21,
11:11, 11:19, 12:24,
20:2
pegging [1] - 125:20
Penn [3] - 6:22, 6:23,
7:25
pennies [1] - 27:11
PENNSYLVANIA [1]
- 1:2
penny [3] - 27:8,
27:9, 27:11
penultimate [1] -
129:15
people [31] - 8:21,
13:23, 27:3, 27:4,
35:16, 49:18, 50:7,
50:16, 77:2, 77:6,
77:11, 77:14, 78:7,
107:23, 127:2,
146:14, 150:4, 170:5,
170:6, 170:10,
170:11, 175:12,
175:19, 190:2, 193:8,
193:19, 208:5, 221:7
people's [1] - 148:13
PEPPER [1] - 3:2
per [7] - 32:11,
40:19, 108:6, 161:4,
222:9, 222:10
Per [1] - 52:17
percent [136] - 26:4,
27:11, 51:11, 51:13,
51:14, 51:15, 52:20,
53:7, 53:8, 53:12,
53:19, 53:22, 53:25,
54:12, 54:14, 54:22,
54:25, 55:4, 55:14,
55:15, 55:18, 56:20,
61:16, 63:22, 65:1,
65:19, 65:24, 66:1,
66:3, 66:5, 66:7, 66:9,
66:11, 66:13, 66:22,
66:25, 67:1, 67:8,
67:16, 70:4, 70:14,

72:1, 72:3, 72:4, 72:7,
72:14, 75:19, 75:20,
80:20, 86:4, 86:5,
89:14, 90:18, 91:3,
91:5, 91:6, 91:7, 92:6,
95:9, 96:22, 96:25,
97:17, 97:19, 97:20,
97:22, 98:11, 99:2,
99:5, 102:16, 103:7,
103:8, 106:2, 110:20,
110:21, 110:24,
110:25, 111:2, 111:3,
111:23, 124:18,
125:2, 125:10,
125:20, 128:23,
129:5, 129:23,
129:24, 130:1,
130:14, 130:16,
130:17, 130:19,
130:20, 130:22,
130:23, 130:25,
131:1, 131:4, 131:5,
135:4, 139:1, 146:24,
155:21, 164:23,
173:25, 174:2, 174:5,
174:7, 174:11,
174:21, 174:24,
175:8, 175:10,
175:11, 175:25,
176:2, 176:3, 177:6,
179:14, 185:24,
191:21, 193:17,
193:23, 201:2, 201:4
Percent [4] - 52:6,
63:11, 72:11, 129:16
percentage [9] -
52:19, 67:3, 92:8,
125:10, 129:19,
146:22, 160:5,
179:15, 179:17
percentage-wise [1]
- 160:5
percentages [1] -
192:21
perfect [2] - 38:21,
183:4
perfectly [3] - 10:10,
17:18, 56:21
perform [2] - 61:13,
104:1
performed [2] - 65:4,
197:15
perhaps [5] - 14:1,
57:5, 64:17, 78:8,
137:21
Period [11] - 40:5,
41:9, 53:18, 54:11,
54:13, 161:7, 191:15,
195:15, 195:18
period [47] - 11:16,

34:11, 40:8, 40:14,
41:7, 41:8, 42:6, 49:7,
53:9, 53:16, 53:21,
54:2, 54:16, 54:19,
54:23, 60:18, 65:19,
66:2, 66:4, 66:10,
66:12, 71:14, 75:8,
76:5, 77:24, 80:9,
81:22, 82:4, 84:16,
87:2, 95:9, 105:22,
114:25, 118:22,
128:19, 134:10,
136:20, 137:1, 146:3,
152:4, 164:16, 184:3,
197:16, 197:18,
198:22, 199:3, 199:16
Periods [3] - 75:13,
155:19, 155:22
periods [8] - 75:13,
76:3, 110:14, 133:5,
155:13, 181:19, 219:5
perish [2] - 10:20,
13:13
permits [2] - 104:11,
223:22
permitting [2] -
223:14, 223:16
person [4] - 21:24,
21:25, 170:23, 206:24
personnel [1] - 209:1
perspective [5] -
36:1, 150:3, 173:11,
175:16, 175:18
Perspective [2] -
100:13, 101:2
phase [10] - 78:2,
151:11, 155:15,
160:16, 161:3, 161:6,
180:19, 181:12,
181:13
phase-in [4] -
151:11, 155:15,
180:19, 181:13
phases [1] - 160:17
PhD [6] - 7:14, 11:17,
15:10, 15:12, 19:6,
19:7
PhDs [1] - 8:21
PHILADELPHIA [1] -
1:7
Philadelphia [3] -
1:23, 3:7, 51:9
Phillies [1] - 5:6
phrase [6] - 26:6,
184:22, 185:1, 186:4,
186:10, 192:19
physically [1] - 190:7
pick [3] - 69:13,
99:13, 219:1
picked [2] - 140:11,

186:7
picking [1] - 195:19
picks [1] - 185:2
picture [3] - 87:3,
94:17, 214:2
pictures [2] - 213:23,
213:24
pie [1] - 108:3
piece [2] - 24:25,
195:3
pile [3] - 221:14,
221:19, 221:21
pipeline [2] - 211:13,
213:4
Pittsburgh [1] - 2:18
place [19] - 39:13,
40:2, 41:6, 41:9,
41:14, 41:24, 42:1,
58:19, 71:14, 71:15,
75:16, 76:3, 77:18,
80:9, 147:19, 148:25,
150:10, 197:17,
217:18
placed [1] - 213:16
places [1] - 88:14
Plaintiff [21] - 2:18,
2:22, 5:13, 24:2,
28:15, 108:23,
109:11, 109:25,
111:15, 113:7,
113:19, 115:16,
115:24, 116:5, 116:6,
116:12, 117:12,
117:13, 117:22,
123:19, 140:5
Plaintiff/Defendant
[2] - 115:6, 116:18
Plaintiffs [41] - 2:6,
2:13, 5:10, 6:12, 9:18,
10:2, 17:6, 18:9,
20:11, 21:14, 21:15,
22:21, 22:22, 24:2,
28:14, 28:20, 95:1,
95:17, 96:8, 97:24,
115:7, 116:10,
117:22, 117:25,
118:13, 119:15,
119:21, 119:23,
123:4, 137:20,
146:20, 146:23,
177:19, 179:24,
189:11, 198:22,
199:2, 199:15, 202:4,
203:9, 226:16
Plaintiffs' [14] -
16:23, 17:3, 20:13,
22:8, 22:12, 99:23,
100:3, 102:21,
117:16, 118:10,
127:10, 131:22,
134:2, 143:22
planning [1] - 215:23
play [2] - 126:2,
188:3
played [2] - 148:16,
191:8
players [2] - 57:4,
193:18
pleasant [1] - 224:19
pleasure [1] - 6:7
plot [1] - 32:23
plots [1] - 33:25
plotted [1] - 82:23
plotting [1] - 140:2
plus [1] - 210:4
Point [1] - 90:13
point [40] - 32:17,
33:3, 36:24, 55:6,
63:4, 63:15, 65:21,
84:24, 86:21, 88:4,
90:13, 97:25, 112:2,
124:17, 124:24,
127:3, 134:12, 135:8,
138:4, 138:13,
153:17, 164:5,
174:25, 186:18,
186:19, 191:23,
191:24, 192:4,
192:21, 193:4,
193:17, 194:4,
195:13, 206:22,
207:5, 207:20,
220:21, 225:13,
225:14
pointed [1] - 25:5
pointing [1] - 153:16
points [3] - 127:22,
136:1, 141:22
Policy [1] - 13:5
policy [1] - 79:16
politics [1] - 77:1
PONZOLI [1] - 2:4
popped [1] - 100:23
populate [3] - 90:3,
90:8, 123:6
population [21] -
35:21, 35:22, 36:4,
36:5, 36:6, 37:19,
44:15, 44:18, 44:20,
47:15, 47:17, 47:18,
47:21, 47:25, 49:25,
50:1, 50:6, 50:10,
50:14, 51:4, 64:15
PORTER [1] - 3:9
PORTER [1] - 3:13
portion [5] - 82:24,
82:25, 83:1, 194:24
position [19] - 13:1,
13:6, 16:5, 16:10,
77:23, 78:7, 78:12,
133:24, 152:10,
194:8, 201:5, 201:13,
201:16, 205:9,
205:10, 205:21,
206:2, 207:9, 207:21
positions [1] - 209:2
positive [2] - 85:23,
221:16
possibilities [3] -
61:5, 65:5, 185:25
possibility [11] -
43:17, 43:21, 44:6,
44:25, 45:10, 45:11,
48:14, 49:4, 57:4,
81:25, 116:15
possible [8] - 42:12,
44:20, 44:25, 65:2,
65:3, 73:2, 185:13,
190:7
possibly [7] - 42:23,
64:21, 72:9, 115:8,
185:13, 185:17,
188:13
post [2] - 151:8,
156:6
potential [8] - 13:18,
13:22, 42:10, 42:14,
104:24, 152:15,
183:14, 196:8
potentially [2] -
192:5, 197:5
Poultry [2] - 120:8,
122:20
poultry [2] - 20:25,
213:21
power [2] - 17:21,
225:11
practice [7] - 5:7,
41:21, 45:3, 170:15,
170:19, 171:13,
190:18
practices [2] - 198:3,
224:7
PRATTER [1] - 1:12
precarious [1] -
196:9
preceded [1] -
152:18
precisely [3] - 96:7,
100:20, 109:8
precludes [1] - 80:13
precluding [1] -
78:20
predicated [1] - 48:2
predict [6] - 51:21,
82:1, 136:18, 139:8,
139:9, 139:23
predicted [3] - 56:19,
57:1, 135:14
predicting [2] -
55:25
prediction [3] - 83:9,
135:10, 135:16
predictions [5] -
57:2, 57:3, 57:13,
135:12, 135:13
predicts [2] - 139:3,
170:10
predominantly [1] -
172:8
prefer [2] - 77:8,
106:25
prepare [13] - 9:21,
32:24, 39:8, 59:20,
62:4, 82:8, 87:14,
89:23, 93:6, 105:15,
109:15, 128:4, 138:4
prepared [10] -
23:10, 23:22, 24:9,
39:14, 42:14, 52:2,
57:12, 145:16,
182:24, 184:19
preparing [1] - 30:21
presence [1] -
148:13
present [3] - 106:15,
148:8, 225:21
presentation [1] -
200:24
President [1] - 15:21
president [3] -
204:15, 207:11, 226:9
pretty [12] - 9:16,
16:25, 34:6, 60:17,
77:25, 112:9, 114:24,
172:1, 178:4, 193:16,
225:25, 227:15
prevailing [3] -
159:23, 160:6, 160:14
prevalent [1] -
170:19
previous [2] - 102:9,
109:2
previously [4] - 17:2,
17:5, 123:20, 167:6
price [124] - 11:21,
12:4, 27:1, 27:2, 27:4,
27:10, 27:12, 28:12,
35:15, 35:17, 37:21,
39:2, 44:8, 46:22,
47:6, 48:5, 48:18,
58:15, 64:13, 89:23,
90:1, 90:11, 90:14,
90:15, 91:2, 91:3,
91:4, 91:5, 91:7, 91:9,
92:2, 92:3, 92:4, 92:5,
95:11, 96:22, 96:25,
97:14, 97:17, 97:18,
97:19, 97:21, 97:22,
98:6, 98:14, 98:19,
99:3, 101:7, 102:12,
104:12, 104:13,
106:16, 107:6, 107:7,
108:12, 108:23,
109:8, 110:9, 110:13,
110:20, 110:24,
111:2, 111:21,
111:24, 112:11,
114:12, 115:9,
115:14, 115:25,
116:1, 116:3, 116:4,
118:2, 118:23, 126:4,
127:24, 127:25,
128:25, 129:1, 129:3,
130:2, 130:4, 130:12,
130:16, 130:20,
130:23, 131:1, 131:5,
132:18, 133:3, 133:6,
136:13, 136:16,
137:14, 137:15,
138:1, 138:3, 139:12,
140:3, 149:2, 149:7,
152:9, 170:7, 178:6,
178:8, 178:9, 178:12,
178:14, 178:15,
178:16, 178:19,
178:20, 178:22,
178:24, 179:2, 179:3,
179:12, 179:16,
180:5, 180:6, 180:14,
190:11
Price [2] - 93:13,
128:10
prices [101] - 8:14,
11:23, 12:2, 12:3,
12:7, 19:24, 22:17,
22:22, 23:15, 24:19,
24:20, 28:6, 28:20,
32:7, 38:11, 38:12,
39:1, 39:5, 47:3,
48:13, 48:14, 48:16,
51:21, 59:11, 77:15,
82:1, 84:4, 84:5,
90:10, 95:6, 95:7,
96:8, 98:25, 99:6,
102:8, 102:15, 103:8,
104:8, 104:9, 106:21,
109:11, 109:22,
111:1, 111:15,
111:23, 113:10,
113:12, 113:15,
113:16, 113:18,
113:19, 114:17,
114:23, 115:5,
115:16, 115:20,
116:7, 116:8, 123:18,
126:5, 129:11,
129:20, 130:5,
132:15, 132:23,
136:8, 136:10,
136:18, 136:21,

136:24, 137:17,
137:19, 138:14,
139:9, 139:12,
139:14, 139:15,
139:20, 139:21,
139:22, 139:25,
140:2, 140:8, 150:5,
151:17, 170:5,
170:10, 170:12,
171:23, 183:9, 184:7,
184:15, 184:25,
188:1, 189:10, 200:5,
201:11
pricing [2] - 136:3,
136:4
primary [1] - 13:16
primer [1] - 31:23
principle [1] - 185:17
print [1] - 62:12
prisoner's [1] - 188:3
privy [1] - 148:6
probability [2] -
55:10, 55:12
problem [7] - 64:23,
142:9, 142:12,
142:20, 147:11,
167:16, 170:10
problems [3] -
132:20, 221:3, 221:9
procedure [1] - 93:3
procedures [1] -
34:24
proceed [3] - 6:9,
203:5, 204:4
proceeding [1] -
56:11
proceedings [2] -
31:9, 228:17
PROCEEDINGS [1] -
1:15
process [14] - 13:14,
15:2, 100:5, 192:24,
208:4, 212:3, 212:4,
212:8, 213:17,
214:11, 215:1,
215:22, 215:23,
223:18
PROCESSED [1] -
1:4
processed [1] -
212:25
processing [2] -
218:6, 224:8
produce [5] - 45:16,
45:22, 59:12, 211:3,
218:5
produced [14] - 1:25,
44:17, 62:1, 70:3,
72:6, 73:19, 76:17,
78:23, 106:3, 113:13,
168:20, 170:20,
208:8, 223:10
producer [30] - 29:2,
46:23, 76:24, 80:16,
106:15, 126:5,
147:22, 148:4, 156:1,
156:5, 156:13,
156:21, 165:18,
167:12, 167:19,
167:25, 168:6,
168:14, 187:14,
189:18, 197:7,
197:12, 201:6,
201:13, 209:5, 209:8,
209:11, 219:23, 220:3
producers [44] -
17:22, 38:10, 38:22,
38:23, 46:20, 47:9,
48:15, 50:5, 76:23,
106:2, 108:13,
122:13, 161:18,
164:1, 164:11, 165:4,
167:3, 167:22, 168:8,
168:17, 169:1, 169:5,
169:14, 172:2,
174:20, 175:8, 176:1,
176:4, 176:23, 177:4,
177:11, 177:17,
187:24, 192:4,
192:19, 192:25,
193:10, 193:23,
198:14, 198:19,
198:20, 198:25,
199:14, 199:23
Producers [5] - 3:7,
29:9, 71:4, 100:13,
101:3
producers' [1] - 47:2
producing [5] - 32:1,
32:18, 39:2, 208:3,
218:11
product [24] - 27:3,
27:18, 28:3, 78:1,
94:2, 94:10, 96:10,
99:14, 103:25,
104:22, 104:23,
105:1, 105:5, 106:15,
106:24, 107:5,
108:15, 109:9,
109:23, 109:25,
118:20, 178:14,
180:7, 219:8
Production [1] - 60:1
production [118] -
26:10, 26:11, 28:25,
29:2, 29:10, 42:8,
46:8, 49:3, 49:21,
54:13, 59:2, 59:3,
59:5, 59:14, 59:21,
60:11, 60:16, 60:20,
60:22, 60:23, 61:21,
61:23, 62:12, 63:7,
63:11, 63:14, 63:19,
64:19, 64:25, 65:9,
65:16, 65:20, 65:22,
65:24, 66:4, 66:7,
66:12, 66:18, 69:16,
70:7, 72:1, 72:3, 72:7,
75:5, 82:20, 87:25,
88:2, 88:5, 88:23,
89:7, 114:11, 135:14,
150:25, 151:7,
153:23, 155:19,
157:7, 158:21,
161:24, 162:25,
163:6, 163:17,
163:19, 164:24,
171:20, 171:25,
172:1, 172:3, 172:17,
172:23, 173:1, 174:4,
179:2, 179:5, 180:3,
180:4, 185:14,
185:18, 185:21,
187:24, 189:17,
194:18, 198:6,
198:11, 204:15,
204:17, 205:10,
205:11, 207:12,
207:24, 208:2,
208:10, 208:20,
208:21, 208:25,
209:18, 209:22,
210:7, 210:10, 215:5,
215:18, 215:22,
218:5, 218:6, 218:7,
219:11, 219:15,
219:22, 220:10,
220:13, 220:21,
220:25, 221:10,
221:25, 222:4, 224:2
productivity [5] -
32:14, 45:23, 46:2,
62:3, 87:13
PRODUCTS [1] - 1:4
products [39] - 12:2,
16:2, 24:21, 27:5,
48:17, 92:8, 92:21,
93:25, 94:19, 95:15,
95:22, 96:9, 98:1,
98:15, 99:4, 99:6,
99:12, 101:14, 103:4,
105:7, 106:13,
106:18, 106:24,
108:4, 108:14, 111:8,
116:17, 118:19,
128:20, 138:13,
138:25, 139:1, 139:2,
140:12, 172:19,
189:10, 219:6, 219:9,
219:10
professionals [1] -
21:17
professor [8] - 6:20,
6:22, 6:24, 6:25, 7:6,
12:17, 188:9
Professor [69] - 4:16,
5:11, 6:16, 7:4, 7:23,
9:11, 9:21, 10:13,
11:11, 12:12, 16:17,
18:11, 18:22, 20:1,
20:12, 20:19, 21:4,
22:7, 25:16, 26:24,
30:21, 31:12, 33:5,
33:15, 42:20, 51:23,
57:9, 59:23, 64:2,
66:14, 69:10, 75:22,
86:17, 87:18, 93:12,
100:9, 100:12,
101:18, 102:20,
103:16, 105:20,
108:16, 109:19,
113:6, 113:25, 118:7,
119:3, 119:5, 120:20,
122:9, 122:25,
125:23, 128:9, 131:7,
140:19, 143:17,
143:24, 153:9,
169:10, 181:8, 182:4,
182:7, 182:12,
189:20, 190:22,
198:4, 200:10, 202:4,
202:8
profit [1] - 104:11
profitably [4] -
104:12, 106:16,
106:21, 108:11
profits [1] - 132:16
program [7] -
126:11, 176:9, 192:5,
192:25, 193:2,
205:16, 205:24
Program [27] - 56:2,
124:23, 125:8, 151:4,
151:11, 153:1, 153:2,
153:13, 153:16,
153:18, 155:15,
156:6, 159:15,
159:23, 160:16,
161:8, 161:18,
161:20, 164:1,
165:17, 166:14,
173:2, 174:4, 180:19,
181:13, 201:3
programmer [1] -
21:22
programs [3] -
22:25, 223:2, 224:12
progressively [1] -
160:10
prohibit [1] - 188:25
prohibits [1] - 165:9
project [7] - 84:9,
145:3, 145:6, 145:14,
146:15, 146:18, 147:4
projection [1] - 86:1
projections [1] -
217:1
promise [1] - 225:8
promised [1] - 81:10
promoted [1] -
207:10
proper [3] - 189:20,
189:21, 223:22
properly [1] - 206:11
protect [1] - 16:1
Protection [3] -
15:18, 15:19, 16:8
protection [1] -
15:23
protein [1] - 108:6
prove [6] - 36:22,
38:15, 60:12, 60:13,
72:23, 137:22
provide [2] - 15:25,
85:4
provided [2] - 71:21,
156:1
provides [2] - 11:7,
137:25
providing [2] -
71:20, 78:17
Public [1] - 13:5
publication [1] - 11:6
publications [1] -
20:3
publish [3] - 10:20,
13:13, 155:5
published [6] -
11:20, 11:23, 12:24,
20:1, 20:4, 33:10
Publix [3] - 2:13,
119:18, 120:12
pull [2] - 17:23,
143:17
pullet [18] - 204:20,
205:12, 207:11,
207:17, 208:7,
209:14, 209:16,
210:4, 210:20,
213:20, 214:4,
214:21, 216:4,
216:11, 217:2,
217:10, 217:12,
217:13
pullets [6] - 40:3,
207:21, 209:13,
215:3, 217:11, 217:15
purchase [4] - 76:22,
77:11, 214:10, 214:12
purchased [9] -
109:9, 115:25,

117:21, 117:25,
118:18, 119:9, 120:2,
121:4
purchasers [1] -
76:17
purchases [4] - 95:1,
112:4, 117:16, 143:22
Purchases [2] -
118:10, 123:12
Purdue [4] - 7:14,
7:15, 205:1, 205:4
pure [1] - 19:14
purely [3] - 16:10,
71:12, 186:15
purple [1] - 114:16
purposes [5] - 53:20,
110:15, 117:24,
118:16, 152:17
pursuant [3] - 76:17,
161:4, 174:13
purview [1] - 204:22
put [32] - 14:24, 27:9,
30:3, 33:1, 45:23,
58:19, 64:21, 68:11,
68:22, 77:25, 83:20,
90:6, 117:23, 118:2,
118:15, 123:2,
125:17, 125:18,
135:16, 140:25,
141:23, 174:5, 194:7,
196:8, 211:9, 212:2,
213:2, 216:25,
217:16, 221:11,
222:15, 227:18
puts [2] - 77:23, 78:6
putting [5] - 32:15,
78:12, 80:18, 81:18,
163:13

Q

qualifications [1] -
18:12
qualified [1] - 13:19
Quality [1] - 122:21
quality [4] - 11:4,
209:1, 209:19, 211:24
quantified [1] - 129:6
quantify [3] - 127:23,
133:9, 152:13
quantifying [3] -
56:6, 91:8, 99:3
quantities [2] -
118:1, 128:21
quantity [11] - 90:17,
91:6, 92:6, 96:23,
97:19, 97:21, 104:10,
178:13, 178:20,
178:21, 179:13

questions [29] -
19:15, 32:16, 52:21,
66:14, 72:17, 107:17,
142:3, 142:8, 143:13,
144:25, 145:2,
162:15, 182:8, 182:9,
182:10, 182:12,
187:13, 187:18,
189:15, 190:25,
194:15, 196:19,
197:6, 197:10,
198:13, 200:11,
200:17, 200:19, 223:3
quick [2] - 193:4,
200:19
quickly [2] - 124:23,
125:4
quit [2] - 27:3, 35:15
quite [6] - 5:3,
153:10, 179:15,
199:10, 211:24, 218:4
quo [1] - 160:18
quote [1] - 102:4
quote/unquote [1] -
142:13
quotes [1] - 107:22

R

R-square [2] - 63:17,
64:1
R-squared [2] -
63:21, 64:24
R.W [4] - 120:8,
121:6, 121:13, 122:22
race [1] - 188:7
Rahn [1] - 101:1
RAHN [1] - 101:1
raincoats [1] - 141:8
raise [14] - 5:18,
14:21, 22:17, 38:12,
51:13, 51:14, 126:4,
132:15, 151:17,
178:21, 190:11,
200:5, 201:11, 203:16
raised [3] - 51:5,
179:13, 187:6
raises [2] - 27:2,
150:7
raising [1] - 210:14
ramped [1] - 53:17
ran [10] - 42:11,
47:24, 48:12, 51:25,
52:23, 62:21, 93:7,
95:14, 184:20, 191:12
Ranch [1] - 120:23
random [3] - 30:2,
127:22, 186:15
randomly [1] -

127:19
range [9] - 86:7,
101:9, 102:13,
218:23, 218:24,
219:4, 219:6, 219:8,
219:16
ranged [2] - 111:2,
111:3
rate [13] - 21:13,
21:16, 26:14, 48:20,
48:24, 48:25, 146:2,
146:5, 146:25, 222:7,
222:9, 222:14, 222:19
rates [2] - 216:10,
223:13
rather [5] - 4:8, 5:1,
19:14, 152:13, 225:16
rational [4] - 70:7,
79:16, 79:20, 85:3
raw [12] - 32:23,
42:24, 58:9, 58:12,
61:1, 61:2, 82:22,
88:19, 114:10,
114:12, 140:2
RE [1] - 1:4
reach [1] - 150:6
reached [4] - 25:8,
25:21, 140:20, 227:9
react [2] - 17:16,
47:6
reacting [1] - 186:24
reaction [1] - 17:19
read [29] - 13:17,
25:3, 25:25, 80:25,
94:4, 101:23, 114:7,
114:8, 118:14,
122:18, 124:16,
124:25, 133:23,
139:6, 159:8, 159:20,
162:9, 162:11,
162:12, 162:16,
163:20, 163:21,
169:19, 171:2, 171:5,
171:7, 188:16, 194:15
reading [7] - 31:7,
31:13, 37:7, 90:15,
103:11, 159:18,
170:25
reads [9] - 40:22,
41:2, 54:25, 62:12,
71:25, 94:6, 97:7,
102:11, 122:11
ready [7] - 141:9,
141:21, 142:24,
143:11, 206:12, 215:1
real [14] - 36:1,
43:23, 44:12, 44:18,
44:19, 47:21, 48:7,
48:13, 48:14, 49:8,
58:11, 64:14, 84:5,

147:10
real-world [1] - 36:1
reality [1] - 185:12
realize [1] - 184:16
realized [3] - 102:15,
142:2, 143:16
really [25] - 4:24, 5:2,
16:11, 19:10, 29:8,
48:24, 53:3, 55:10,
72:14, 75:7, 81:24,
86:11, 97:24, 107:4,
144:7, 176:10,
177:24, 185:25,
203:4, 211:22, 215:3,
218:19, 225:11,
225:15, 227:13
rearranged [1] -
69:10
reason [8] - 44:7,
49:6, 51:18, 59:17,
106:10, 169:17,
177:14, 225:18
reasonably [3] -
9:14, 9:15, 61:5
reasons [8] - 5:14,
26:12, 29:14, 80:4,
103:23, 169:5, 174:9,
187:10
received [4] - 7:12,
11:17, 12:14, 116:12
recently [1] - 15:17
recess [4] - 69:1,
141:16, 141:17,
202:23
recession [2] - 49:7,
49:10
Recession [1] -
36:17
recessions [2] -
44:20, 64:15
recognize [5] -
49:21, 56:17, 71:7,
80:8, 173:20
recollection [6] -
145:18, 151:13,
165:3, 174:3, 193:3,
193:14
recommendation [3]
- 13:25, 14:25, 15:5
recommendations
[2] - 11:7, 16:16
reconsider [3] -
200:12, 202:4, 202:7
record [60] - 5:24,
23:2, 23:14, 24:1,
37:12, 37:24, 38:1,
38:9, 38:13, 41:25,
45:19, 48:9, 48:11,
53:20, 56:18, 68:6,
68:11, 68:23, 70:3,

70:25, 77:10, 79:6,
82:13, 92:23, 95:8,
99:15, 99:17, 99:21,
100:15, 100:17,
107:21, 114:23,
121:2, 122:18, 125:9,
125:19, 127:15,
131:3, 132:5, 132:12,
135:11, 136:8, 139:7,
140:25, 141:23,
142:12, 142:14,
148:8, 150:11,
150:16, 150:17,
151:14, 152:2, 152:7,
170:4, 170:8, 180:13,
190:18, 203:22,
228:17
Record [1] - 114:8
record-driven [1] -
150:16
records [3] - 76:15,
148:9, 164:15
recross [1] - 200:18
RECROSS [1] -
200:21
RECROSS-
EXAMINATION [1] -
200:21
red [13] - 60:5, 83:1,
85:15, 85:17, 85:21,
85:25, 86:10, 86:11,
88:9, 112:8, 112:9,
139:13
REDDING [1] - 3:4
REDIRECT [1] -
182:2
redirect [2] - 162:21,
181:25
reduce [14] - 22:17,
23:3, 25:18, 32:11,
46:3, 51:10, 56:20,
90:24, 132:11,
132:15, 158:24,
163:19, 184:7, 201:10
reduced [11] - 31:17,
55:12, 70:14, 90:17,
102:16, 108:24,
128:22, 162:25,
163:5, 163:17, 191:20
reduction [40] -
27:13, 28:11, 29:12,
31:20, 32:14, 32:20,
43:14, 43:18, 52:19,
53:12, 53:22, 53:25,
54:7, 63:11, 65:20,
65:21, 65:24, 66:1,
66:4, 66:7, 66:12,
72:1, 72:3, 89:14,
90:19, 91:3, 91:6,
97:20, 98:11, 98:16,

99:2, 99:5, 102:7,
109:10, 128:24,
129:4, 135:14,
135:15, 151:7, 185:9
Reduction [1] - 52:6
reductions [11] -
22:16, 22:23, 46:5,
76:14, 98:24, 109:5,
110:11, 118:23,
132:8, 150:5, 191:16
REEDER [1] - 3:5
refer [3] - 41:5,
59:24, 177:22
referee [1] - 187:9
referees [2] - 11:10,
13:23
reference [16] - 10:9,
41:5, 46:16, 48:4,
55:3, 58:1, 67:8,
69:15, 98:6, 119:17,
135:7, 144:2, 192:20,
196:21, 199:20,
225:23
referenced [1] - 93:8
references [2] - 41:6,
49:14
referencing [2] -
94:5, 101:6
referred [5] - 61:12,
87:19, 111:7, 134:7,
184:5
referring [19] - 36:4,
43:7, 57:16, 85:17,
91:19, 93:1, 93:2,
96:4, 102:10, 103:6,
115:12, 118:8,
129:12, 129:13,
129:16, 153:15,
159:3, 164:21, 218:19
refers [1] - 98:22
reflect [5] - 59:20,
61:11, 62:4, 95:24,
128:4
reflected [9] - 62:11,
87:21, 91:16, 93:18,
99:9, 110:8, 118:12,
124:11, 140:4
Reform [1] - 15:22
refresh [2] - 10:14,
165:3
regard [15] - 20:24,
21:2, 59:21, 61:21,
74:22, 93:7, 103:6,
120:1, 120:20, 121:1,
121:9, 121:15,
121:23, 122:3, 140:16
regarding [8] - 20:2,
20:5, 22:8, 22:12,
31:16, 49:25, 127:11,
150:18
regardless [1] -
150:6
region [2] - 88:6,
88:8
regression [30] -
42:9, 42:15, 49:17,
52:23, 61:19, 61:22,
62:5, 63:13, 64:6,
64:11, 64:22, 70:12,
71:5, 73:9, 73:12,
73:13, 73:20, 73:23,
74:23, 81:2, 81:5,
93:2, 115:3, 115:4,
136:2, 183:17, 195:5
regressions [5] -
42:11, 43:1, 51:23,
51:25, 95:14
regulations [1] -
223:6
regulatory [2] -
222:20, 222:24
reinforced [1] - 65:6
reject [2] - 135:3,
191:19
rejected [1] - 18:12
rejects [1] - 11:8
rejoin [2] - 141:21,
142:24
relate [1] - 155:13
related [8] - 10:23,
15:23, 61:6, 78:10,
149:20, 155:14,
195:24, 196:2
relates [1] - 55:10
relationship [11] -
18:14, 18:22, 37:18,
73:14, 103:21,
113:10, 113:11,
115:5, 115:13, 116:9,
123:17
relationships [1] -
73:21
relative [6] - 27:15,
29:11, 72:5, 136:21,
139:4, 139:25
relatively [3] - 27:6,
35:14, 35:17
relevance [1] -
197:14
Relevant [1] - 105:19
relevant [35] - 26:19,
27:17, 27:18, 27:23,
28:3, 46:21, 83:21,
103:17, 103:22,
104:3, 104:14,
104:15, 104:21,
104:23, 104:25,
105:1, 105:5, 105:7,
105:11, 105:22,
106:4, 106:12,
106:23, 106:24,
107:10, 107:12,
107:14, 108:15,
108:19, 156:8,
156:18, 173:3,
175:19, 221:18
reliably [1] - 133:21
reliant [1] - 106:1
relied [2] - 24:18,
24:19
rely [2] - 19:13, 75:6
remain [2] - 5:18,
203:16
remaining [1] - 75:12
remember [26] -
10:13, 30:6, 70:16,
100:20, 114:4,
145:11, 145:21,
157:13, 157:14,
157:17, 159:16,
159:17, 159:18,
159:19, 159:22,
160:2, 164:3, 164:5,
164:9, 164:13,
164:14, 165:23,
166:19, 198:18, 210:6
remind [2] - 81:15,
104:6
repeat [2] - 163:3,
178:7
rephrase [1] - 113:1
rephrased [2] -
112:17, 112:18
replaced [2] -
205:13, 210:1
replacement [2] -
209:13, 217:10
replacing [1] - 167:4
replenish [1] - 80:11
reply [1] - 134:14
report [48] - 4:25,
18:7, 29:21, 29:24,
30:4, 30:5, 30:8,
30:11, 53:22, 62:25,
65:20, 66:3, 66:11,
75:20, 77:22, 98:4,
107:22, 113:14,
123:3, 124:9, 125:16,
131:8, 132:12,
132:13, 138:25,
145:10, 145:15,
157:1, 164:18,
164:25, 165:4,
167:12, 167:15,
173:23, 174:13,
176:14, 176:17,
177:14, 191:25,
192:17, 195:19,
195:23, 201:2, 207:2,
208:18
reported [3] - 15:10,
65:24, 66:8
reporter [1] - 31:8
Reporter [2] - 1:21,
228:21
reporting [8] - 65:15,
95:5, 131:11, 133:18,
133:20, 163:23,
166:16, 206:4
reports [15] - 24:20,
29:21, 30:15, 30:21,
31:2, 31:4, 95:5,
126:18, 126:25,
145:18, 163:25,
164:12, 164:13,
165:14, 208:22
represent [4] - 17:6,
48:7, 144:24, 177:10
representation [3] -
166:21, 166:23, 218:3
represented [7] -
17:21, 149:23,
174:20, 176:1, 177:5,
201:1, 219:11
represents [1] -
58:20
requested [1] - 114:8
require [3] - 14:22,
104:3, 194:5
required [6] - 8:24,
157:2, 163:25,
164:11, 165:17,
183:11
requirement [4] -
164:3, 165:21, 166:9,
166:16
requirements [2] -
165:12, 166:15
requiring [1] - 165:4
Research [4] - 8:20,
15:18, 16:6, 16:8
research [12] - 8:7,
8:10, 10:21, 10:22,
11:1, 11:21, 19:15,
25:6, 76:25, 183:7,
210:17, 224:21
researchers [3] -
15:13, 19:13, 101:13
resist [1] - 74:18
resources [3] -
16:12, 16:15, 189:6
respect [20] - 13:25,
23:10, 60:10, 61:22,
63:14, 65:16, 77:3,
90:2, 117:13, 117:15,
123:20, 140:5,
140:14, 150:17,
151:23, 178:14,
187:15, 187:17,
194:24, 198:8
response [7] - 91:10,
102:15, 129:4,
134:13, 134:23,
145:1, 145:19
responsibilities [3] -
13:11, 16:7, 208:13
responsibility [1] -
13:17
responsible [5] -
148:15, 206:2,
206:17, 206:24,
218:14
rest [2] - 141:9,
219:20
rested [2] - 5:13,
203:9
restraint [3] - 78:25,
79:2, 192:13
restraints [2] -
195:25, 196:3
restrict [10] - 126:4,
156:16, 170:14,
188:22, 190:5,
190:10, 190:19,
191:23, 200:5, 219:2
Restriction [33] -
40:1, 40:5, 40:14,
41:1, 41:8, 42:2,
52:10, 53:18, 53:21,
53:24, 54:1, 54:2,
54:11, 54:13, 54:16,
54:19, 65:12, 65:23,
66:6, 66:18, 66:22,
67:5, 75:13, 152:20,
161:7, 161:8, 162:4,
191:20, 195:15,
195:18
restriction [18] -
40:2, 40:9, 40:12,
41:7, 41:14, 52:12,
53:11, 53:23, 66:2,
66:10, 71:16, 80:20,
87:2, 160:12, 161:1,
161:2, 162:7
Restrictions [4] -
155:13, 158:6,
163:15, 196:22
restrictions [50] -
32:10, 39:12, 39:22,
39:24, 40:10, 40:25,
41:23, 42:1, 50:24,
53:10, 53:15, 54:6,
54:13, 54:15, 54:23,
55:24, 56:20, 58:18,
63:1, 63:2, 63:6, 71:5,
71:6, 71:9, 72:6,
81:18, 150:18,
150:19, 152:24,
153:12, 155:15,
157:6, 158:4, 158:16,

159:5, 160:10,
160:25, 161:24,
162:5, 162:6, 170:13,
180:18, 181:14,
191:2, 191:7, 194:17,
195:6, 195:11
restrictive [1] - 80:21
resubmit [1] - 14:2
result [41] - 12:3,
23:15, 28:6, 28:21,
30:12, 54:22, 56:7,
56:12, 59:18, 72:23,
73:4, 95:24, 96:1,
98:15, 102:8, 108:24,
109:10, 109:12,
110:21, 119:1, 119:7,
119:13, 120:3, 120:9,
120:13, 120:17,
120:21, 121:3,
121:11, 121:17,
121:24, 125:4,
129:20, 130:5,
135:15, 173:1, 179:2,
180:8, 180:10,
184:17, 189:9
resulted [2] - 129:11,
134:21
results [32] - 13:24,
43:22, 48:12, 49:9,
52:3, 52:23, 54:20,
55:18, 62:4, 63:12,
63:13, 65:15, 71:19,
74:22, 75:19, 77:15,
81:23, 82:5, 82:8,
84:13, 85:9, 87:14,
93:6, 128:1, 128:4,
129:13, 130:12,
140:20, 155:10,
182:25, 184:6, 184:20
resume [5] - 67:25,
69:7, 141:6, 141:9,
143:11
resumes [2] - 69:2,
141:18
retailer [1] - 78:3
retailers [2] - 77:23,
192:5
retailers' [1] - 118:19
returning [1] - 13:8
review [11] - 20:4,
23:2, 23:14, 24:1,
25:7, 77:10, 127:17,
132:5, 151:13, 152:2,
193:4
reviewed [18] -
10:17, 10:19, 10:21,
11:11, 11:19, 12:24,
14:20, 20:2, 25:4,
45:19, 70:4, 79:5,
79:6, 95:8, 125:23,

159:21, 164:15,
190:18
reviews [1] - 13:21
revise [2] - 11:9,
14:1
revisit [1] - 227:6
revolution [1] -
19:11
rich [1] - 126:5
RICHARD [1] - 2:3
rid [2] - 34:10, 112:6
right-hand [5] - 67:4,
67:7, 71:23, 72:10,
98:8
ring [1] - 170:24
rise [12] - 4:18, 68:2,
69:3, 91:4, 126:5,
141:12, 141:19,
143:8, 170:10,
202:16, 202:24,
224:24
rises [4] - 27:4,
91:10, 92:4, 92:5
rising [1] - 26:12
risk [1] - 80:1
ROBIN [1] - 3:3
robust [5] - 47:7,
62:23, 89:15, 183:19,
185:16
robustness [4] -
46:25, 71:20, 74:16,
82:3
role [5] - 14:6, 15:11,
126:1, 148:16, 207:22
room [7] - 1:22,
38:11, 38:15, 38:21,
38:25, 39:23, 188:14
Rose [57] - 3:16,
28:21, 28:23, 28:24,
29:1, 29:10, 29:14,
57:5, 57:6, 109:12,
111:16, 112:4, 113:8,
115:17, 116:12,
117:17, 118:11,
120:3, 120:8, 121:6,
122:22, 123:13,
123:20, 139:1, 140:6,
140:12, 143:23,
144:24, 147:14,
189:16, 190:6,
190:11, 197:19,
197:23, 198:1, 198:3,
198:7, 198:9, 203:14,
204:13, 205:5, 205:9,
208:13, 208:16,
209:7, 209:21,
212:11, 213:25,
215:23, 218:8,
218:19, 219:11,
219:22, 219:23,

220:20, 226:10,
227:22
rotating [1] - 212:7
roughly [3] - 55:17,
83:4, 83:6
round [1] - 208:9
rounding [1] -
110:24
Roundy's [3] - 2:7,
119:18, 120:16
routine [1] - 206:10
RPR [2] - 1:21,
228:21
ruins [1] - 196:12
Rule [1] - 227:23
rule [40] - 40:7,
40:11, 40:22, 40:24,
43:17, 61:4, 71:10,
71:14, 75:16, 75:22,
76:2, 76:12, 77:17,
77:21, 77:22, 78:18,
78:20, 125:5, 161:23,
162:5, 162:8, 162:24,
163:5, 163:15,
163:16, 164:22,
164:24, 165:13,
166:16, 192:2,
192:13, 193:8, 194:4,
194:16, 195:14,
196:7, 196:21,
196:25, 197:2, 222:25
rules [4] - 68:12,
126:9, 141:10, 197:17
run [6] - 42:9, 51:23,
74:8, 102:14, 191:18,
221:20
running [2] - 136:2,
205:14
runs [2] - 83:6, 91:19
Rust [2] - 206:4,
221:3

S

safely [3] - 201:23,
202:8, 224:18
safety [1] - 222:25
Safeway [4] - 2:6,
119:18, 120:20,
120:22
salary [1] - 51:10
Sales [1] - 129:17
sales [7] - 129:23,
139:2, 216:19,
216:20, 217:1, 224:6,
226:10
Salmonella [1] -
223:1
sanity [1] - 21:23

Sauder [4] - 120:8,
121:6, 121:13, 122:22
saw [8] - 52:12,
110:10, 113:23,
122:17, 148:9, 151:14
scare [1] - 221:13
scared [1] - 221:20
scary [1] - 5:2
schedule [7] - 210:2,
211:8, 217:6, 217:19,
217:20, 224:21,
225:23
scheduled [1] -
215:21
scheduling [2] -
5:13, 215:22
scheme [3] - 17:23,
201:10, 222:20
School [2] - 7:8, 8:5
science [3] - 8:22,
135:9, 205:3
scientific [9] - 10:22,
11:4, 35:25, 73:21,
133:9, 133:24, 138:2,
140:1, 191:21
Scientific [2] - 171:6,
171:9
scientifically [4] -
36:3, 56:1, 60:14,
183:2
scrambling [2] -
132:17
screen [8] - 33:5,
33:11, 61:10, 63:10,
69:11, 69:14, 94:5,
166:3
scrutiny [1] - 14:22
search [2] - 72:24,
100:22
searches [1] - 24:25
searching [1] -
100:21
seasonal [2] - 49:22,
88:22
seasonality [5] -
64:19, 84:7, 88:21,
88:24, 89:2
seat [4] - 4:5, 5:22,
203:20
seated [2] - 31:8,
226:24
seats [4] - 4:20,
141:20, 143:11, 203:1
sec [1] - 210:13
second [10] - 12:19,
21:24, 22:19, 39:14,
50:1, 93:21, 112:1,
136:1, 142:2, 177:22
secondly [2] -
103:25, 137:21

section [2] - 164:21,
166:7
sections [1] - 219:3
see [72] - 4:4, 4:11,
32:23, 32:24, 33:5,
33:7, 33:17, 34:1,
34:2, 34:10, 34:14,
34:21, 40:13, 40:25,
42:3, 43:22, 43:25,
46:9, 47:14, 51:19,
55:1, 58:19, 60:11,
62:12, 67:10, 69:12,
69:18, 74:3, 75:14,
75:20, 87:3, 88:6,
88:20, 92:23, 93:15,
98:8, 98:20, 110:25,
114:22, 116:20,
122:14, 122:23,
122:24, 128:12,
129:5, 131:9, 139:3,
139:15, 141:5,
141:10, 141:21,
143:2, 144:3, 150:11,
155:8, 158:7, 158:8,
162:3, 165:1, 165:2,
165:5, 166:9, 166:11,
170:14, 191:4,
196:21, 207:23,
210:12, 217:24,
222:3, 222:11, 224:22
seeing [10] - 88:7,
88:8, 88:9, 100:10,
115:14, 139:19,
193:18, 193:19, 210:6
seem [2] - 176:8,
180:23
segment [1] - 189:14
select [1] - 86:20
selection [1] -
222:18
sell [6] - 27:14,
193:22, 194:8,
196:11, 196:12, 199:2
selling [3] - 12:21,
78:20, 223:12
send [2] - 11:2,
13:20
sends [2] - 11:3,
13:14
sensation [1] -
194:21
sense [4] - 38:22,
57:14, 97:15, 195:9
sensible [1] - 228:1
sensitive [3] - 26:25,
90:10, 97:14
sent [3] - 4:6,
131:13, 212:21
sentence [5] - 64:1,
95:4, 164:19, 164:20,

187:3
sentences [1] - 64:3
separate [5] - 15:2, 15:5, 47:25, 115:4, 210:25
separately [4] - 48:12, 48:13, 76:2, 163:12
series [2] - 112:11, 187:13
serve [8] - 13:6, 16:11, 17:10, 17:14, 17:16, 18:8, 21:5, 113:23
served [4] - 12:25, 13:2, 13:4, 16:17
services [1] - 44:17
session [1] - 4:8
set [13] - 26:22, 37:19, 39:1, 42:23, 53:9, 72:24, 93:19, 106:13, 106:18, 143:21, 211:10, 217:12
setup [2] - 218:22, 219:4
seven [1] - 16:10
several [4] - 31:15, 98:19, 213:18, 224:12
sexually [2] - 210:21, 214:25
Seymour [8] - 205:17, 207:1, 207:15, 212:19, 214:8, 214:9, 214:19, 214:20
shaded [1] - 86:12
shadows [1] - 21:25
SHAPIRA [1] - 2:15
share [3] - 124:7, 174:12, 174:15
shares [1] - 175:3
shavings [1] - 221:11
Shell [4] - 94:2, 94:5, 94:6, 123:12
shell [26] - 94:12, 96:10, 98:14, 99:4, 99:13, 101:14, 103:4, 105:6, 106:24, 108:3, 108:9, 108:12, 108:14, 109:9, 110:18, 111:11, 112:4, 114:12, 114:13, 137:14, 138:3, 138:14, 138:18, 139:13, 172:7
shift [1] - 187:12
shifts [1] - 90:25
shipped [1] - 105:23
shoot [1] - 216:12
shopper [1] - 35:14
short [24] - 22:15, 22:24, 102:13, 127:18, 127:19, 131:19, 131:21, 131:25, 132:8, 133:2, 133:5, 133:6, 148:20, 148:23, 151:15, 152:8, 152:18, 182:13, 182:17, 184:2, 184:4, 186:6, 202:13, 217:22
short-lived [1] - 148:23
short-term [19] - 22:15, 22:24, 127:18, 127:19, 131:19, 131:21, 131:25, 132:8, 133:2, 133:5, 133:6, 148:20, 152:8, 152:18, 182:13, 182:17, 184:2, 184:4, 186:6
shorthand [1] - 1:25
shortly [2] - 8:5, 227:25
shot [1] - 213:2
show [16] - 34:17, 52:2, 53:2, 58:5, 82:8, 87:14, 91:15, 93:6, 99:19, 109:21, 125:13, 137:4, 138:9, 155:6, 188:9, 213:16
showed [11] - 33:20, 60:9, 64:7, 82:20, 99:1, 123:20, 125:17, 140:8, 174:6, 198:15, 198:23
showing [3] - 138:14, 193:14, 226:22
shown [9] - 52:22, 84:14, 88:16, 100:18, 105:20, 109:1, 126:21, 128:14, 213:24
shows [12] - 53:12, 63:9, 87:23, 100:24, 105:22, 109:21, 112:7, 123:16, 124:17, 125:2, 136:8
shrink [1] - 187:25
shrinks [2] - 85:22, 97:19
shtick [1] - 4:14
shutting [1] - 78:22
side [14] - 13:13, 16:23, 16:24, 66:15, 66:17, 67:4, 69:15, 71:23, 98:8, 103:8, 129:14, 164:21, 208:2, 216:24
sides [1] - 68:14
sign [4] - 192:5, 193:8, 194:5
signal [1] - 224:16
signaling [1] - 193:6
signed [3] - 15:21, 148:7, 201:9
Significance [1] - 72:11
significance [9] - 55:4, 55:9, 67:16, 75:19, 115:13, 115:22, 115:23, 124:20, 127:5
significant [9] - 52:20, 54:25, 67:8, 86:16, 88:10, 106:16, 118:23, 155:20, 192:15
significantly [1] - 116:5
signing [3] - 193:1, 193:5
signs [1] - 78:18
signup [1] - 193:16
similar [3] - 74:4, 127:17, 140:8
simple [17] - 34:21, 36:23, 37:3, 44:13, 61:13, 83:18, 104:16, 104:17, 104:18, 139:3, 175:24, 176:5, 176:7, 176:10, 177:10, 189:11
simplification [1] - 185:12
simply [5] - 27:18, 101:22, 102:22, 154:24, 211:3
single [9] - 21:21, 25:3, 48:10, 134:9, 183:5, 191:23, 195:8, 215:11, 215:13
single-cycle [1] - 215:11
sink [2] - 75:4, 191:18
sit [1] - 69:5
site [6] - 206:24, 216:6, 217:14, 223:11, 223:18, 223:20
sites [1] - 12:4
sitting [3] - 73:7, 159:16, 164:7
situation [2] - 196:9, 198:2
six [2] - 195:4, 202:14
size [89] - 31:18, 31:22, 31:24, 31:25, 32:3, 32:19, 33:24, 40:4, 40:13, 42:24, 43:2, 43:10, 43:11, 43:15, 45:1, 46:5, 51:3, 51:6, 51:7, 52:19, 53:8, 53:12, 53:19, 53:22, 53:25, 54:7, 54:12, 54:22, 57:10, 57:23, 57:24, 58:10, 58:16, 58:17, 58:25, 60:10, 61:4, 61:19, 61:25, 63:2, 65:8, 73:18, 81:3, 81:6, 81:8, 82:21, 82:23, 83:23, 83:24, 83:25, 84:10, 84:14, 84:16, 85:5, 85:11, 87:2, 87:6, 88:1, 114:11, 124:8, 124:12, 128:18, 135:15, 135:16, 151:7, 153:22, 156:20, 156:24, 158:20, 159:4, 161:9, 171:18, 174:15, 174:17, 174:21, 177:7, 186:18, 186:19, 190:6, 191:24, 198:5, 211:7, 216:3, 224:11
Size [8] - 33:9, 33:15, 36:11, 52:6, 57:18, 57:19, 82:14, 82:15
sized [2] - 45:21, 135:23
sizes [2] - 32:9, 220:18
skeptical [2] - 17:22, 72:21
SLATER [2] - 2:10, 2:10
Slide [86] - 33:1, 33:15, 36:10, 39:17, 39:20, 42:17, 42:20, 43:7, 43:20, 52:5, 52:22, 54:25, 57:15, 58:5, 59:23, 59:24, 62:7, 62:9, 62:18, 65:11, 69:14, 74:22, 75:12, 82:11, 82:19, 84:14, 87:5, 87:17, 88:14, 89:22, 90:2, 91:16, 93:10, 93:12, 93:18, 96:4, 97:5, 97:6, 98:8, 99:9, 99:22, 100:12, 100:18, 102:20, 105:18, 105:20, 105:22, 109:19, 110:1, 110:4, 110:8, 112:1, 118:4, 118:12, 122:6, 123:10, 123:24, 124:4, 124:10, 124:11, 125:13, 125:14, 126:19, 126:21, 128:7, 128:9, 129:14, 131:7, 137:4, 137:10, 138:6, 138:8, 138:17, 140:5, 140:14, 140:16, 140:17, 143:17, 143:24, 199:23, 200:23, 200:24
slide [39] - 33:7, 39:15, 42:14, 52:2, 52:5, 52:22, 59:20, 59:24, 61:7, 62:4, 62:11, 82:8, 82:10, 82:14, 87:14, 87:18, 87:22, 89:23, 90:3, 96:2, 96:4, 101:16, 102:18, 105:15, 109:15, 109:20, 112:7, 123:12, 123:16, 123:25, 125:14, 128:4, 128:15, 137:5, 137:9, 138:4, 138:20, 199:6
Slides [1] - 95:13
slides [5] - 62:4, 138:5, 141:24, 198:15, 198:17
slight [1] - 67:2
slightly [1] - 69:11
slope [1] - 34:25
slopes [1] - 61:14
slow [1] - 100:4
slowed [1] - 26:14
small [8] - 17:22, 27:6, 28:11, 67:1, 106:16, 128:24, 148:10, 218:23
smaller [9] - 29:15, 57:1, 62:11, 135:17, 160:7, 181:19, 209:11, 220:1, 220:16
smallest [5] - 53:3, 75:7, 75:10, 129:3, 130:11
smell [1] - 57:13
smiling [1] - 203:3
smoke [6] - 38:11, 38:15, 38:21, 38:25, 39:23, 187:5
smoke-filled [5] -

38:11, 38:15, 38:21,
38:25, 39:23
snapshot [1] -
193:13
so.. [2] - 210:5,
216:18
social [1] - 221:16
sold [5] - 118:19,
129:9, 131:17,
198:21, 199:14
solely [1] - 195:3
solicit [1] - 13:21
solid [1] - 61:9
someone [6] - 8:23,
13:14, 18:5, 22:4,
68:16, 193:21
someplace [1] -
132:2
something's [2] -
61:3, 191:24
sometime [2] - 41:8,
157:17
sometimes [2] -
34:5, 176:12
somewhere [2] -
11:15, 70:4
son's [1] - 157:20
sophisticated [1] -
37:20
sorry [27] - 17:4,
39:7, 53:18, 54:14,
58:16, 76:2, 79:18,
82:21, 97:18, 97:21,
109:25, 118:18,
124:2, 133:11,
135:11, 135:25,
152:6, 158:20, 163:9,
178:2, 178:7, 182:4,
193:12, 196:1, 199:4,
201:24, 214:18
sort [7] - 112:24,
148:19, 171:15,
177:9, 208:12,
215:20, 227:9
sound [1] - 80:6
sounds [5] - 152:23,
153:11, 167:1, 178:4,
192:6
source [2] - 122:4,
217:24
South [3] - 2:5, 2:21,
3:15
south [1] - 205:18
southeast [2] -
94:14, 94:15
southern [3] - 94:12,
94:13, 207:16
soy [1] - 84:18
soybean [5] - 48:4,
48:8, 48:13, 48:15,
84:5
soybeans [1] - 48:9
space [44] - 32:10,
39:24, 40:2, 40:4,
40:9, 40:19, 42:1,
45:15, 50:24, 53:10,
53:15, 54:6, 55:23,
56:20, 58:17, 71:5,
71:8, 71:15, 85:14,
102:14, 152:24,
152:25, 153:12,
155:14, 155:25,
157:3, 157:6, 158:4,
158:16, 160:4,
160:24, 161:1, 161:4,
161:15, 161:24,
162:5, 165:12,
166:15, 180:18,
191:1, 191:7, 194:17,
195:6, 195:11
Space [1] - 52:17
Sparboe [5] -
118:21, 118:25,
120:3, 121:7, 122:22
speaking [2] - 28:23,
68:13
special [1] - 8:17
specialty [3] - 32:2,
172:10, 216:23
specific [9] - 11:6,
99:12, 167:16, 168:2,
168:5, 169:3, 178:13,
201:12
specifically [8] -
71:20, 94:17, 150:22,
167:9, 171:14, 179:1,
183:6, 216:23
specification [25] -
48:6, 53:1, 53:3, 58:1,
58:4, 62:24, 62:25,
66:18, 69:16, 69:21,
69:22, 69:24, 75:2,
98:13, 155:24,
163:13, 180:17,
180:21, 181:6,
181:11, 181:12,
181:16, 191:13,
191:18, 195:8
Specification [6] -
57:19, 75:3, 181:15,
191:14, 191:17, 195:2
specifications [13] -
42:22, 47:24, 53:2,
63:7, 65:7, 75:2, 98:7,
98:20, 155:10,
159:19, 166:25,
180:23, 195:7
specifics [1] - 24:18
specified [1] - 88:3
specify [1] - 183:18
speculate [1] -
152:13
speed [1] - 30:16
spell [2] - 5:23,
203:21
spelled [2] - 8:19,
107:2
spend [1] - 189:6
spent [9] - 108:7,
117:20, 145:6, 145:9,
145:13, 145:21,
145:23, 146:18,
205:11
SPERLING [1] - 2:10
spiked [2] - 139:15
spikes [2] - 88:21,
139:16
split [1] - 16:25
spot [3] - 21:21,
21:22, 114:25
spread [3] - 49:5,
49:11, 207:18
Spulber [1] - 13:16
Square [1] - 3:6
square [4] - 46:14,
63:17, 64:1, 185:23
squared [8] - 45:6,
45:9, 46:12, 46:13,
63:21, 64:24, 183:23,
185:19
squares [1] - 93:3
SSNIP [3] - 106:22,
107:1, 107:2
stabilize [1] - 212:1
staff [10] - 14:20,
14:24, 25:4, 31:3,
125:18, 128:17,
131:13, 146:24,
147:1, 176:24
stage [4] - 93:3,
135:3, 143:21, 151:10
stages [2] - 208:12,
209:22
staging [1] - 211:19
stand [4] - 69:2,
81:11, 141:18, 226:8
standard [18] -
34:23, 41:21, 44:12,
45:3, 45:21, 61:15,
77:8, 79:24, 80:4,
83:17, 159:23, 160:6,
160:14, 186:22,
191:21, 214:4, 223:16
standard-sized [1] -
45:21
standards [3] -
156:5, 157:3, 159:17
standing [3] - 5:18,
142:23, 203:16
standpoint [4] -
77:16, 140:13, 150:8,
197:24
start [29] - 10:18,
21:6, 42:5, 53:15,
54:6, 63:17, 80:17,
90:13, 107:9, 110:1,
110:4, 114:10,
151:18, 151:21,
151:24, 154:22,
161:12, 161:17,
193:18, 193:19,
205:8, 212:3, 212:4,
214:11, 215:5,
219:22, 220:10,
223:22, 225:15
started [25] - 29:25,
30:4, 34:21, 35:13,
53:16, 80:20, 81:19,
149:17, 153:22,
160:25, 162:19,
166:19, 205:5,
205:17, 212:14,
219:23, 219:25,
220:2, 220:5, 220:6,
220:15, 220:20,
221:4, 222:6
starting [15] - 14:12,
32:17, 33:22, 38:9,
43:12, 43:22, 87:22,
88:9, 96:16, 131:11,
134:19, 160:18,
190:24, 196:20, 214:5
starts [7] - 60:19,
71:2, 71:3, 152:21,
164:20, 166:14,
214:25
state [6] - 5:23,
16:13, 45:18, 203:21,
213:4, 222:23
State [4] - 6:22, 6:23,
7:25, 101:2
state-of-the-art [1] -
16:13
statement [5] - 64:4,
77:25, 103:7, 159:3,
159:4
statements [2] -
98:3, 107:22
States [13] - 3:8,
14:10, 14:13, 14:14,
14:17, 23:4, 25:19,
31:17, 65:17, 105:14,
106:23, 108:20,
108:25
states [1] - 223:7
STATES [1] - 1:1
statically [1] - 55:4
Statistical [1] - 72:11
statistical [11] -
34:21, 36:23, 41:19,
55:8, 55:9, 55:21,
67:16, 73:13, 73:21,
75:18, 81:6
statistically [12] -
34:18, 34:22, 34:24,
52:20, 54:25, 61:16,
86:16, 88:10, 118:23,
155:20, 158:5, 192:15
Statistically [1] -
67:8
statistics [3] - 8:23,
15:14, 18:21
status [1] - 160:18
stay [7] - 53:16,
207:9, 207:20,
210:22, 211:20,
224:22, 225:9
stayed [2] - 146:2,
146:12
steady [2] - 35:22,
35:23
stemming [2] -
58:20, 119:1
step [1] - 225:2
stepped [1] - 13:5
stepping [1] - 216:2
steps [2] - 209:18,
216:3
stick [7] - 134:16,
171:25, 175:4, 181:6,
182:7, 182:10, 199:9
sticking [1] - 155:24
still [3] - 69:14,
107:11, 227:4
stock [2] - 214:10,
214:13
Stoddard [1] -
203:23
stones [1] - 187:9
stop [10] - 15:2, 37:5,
39:14, 57:9, 86:21,
93:21, 112:1, 117:3,
117:4, 224:8
stopped [1] - 194:20
storage [1] - 223:11
Stores [1] - 2:22
stories [3] - 79:15,
80:24, 188:6
Storm [1] - 214:7
story [3] - 79:22,
80:5, 80:8
straight [2] - 60:17,
202:14
strain [1] - 222:7
strategies [2] -
10:24, 185:9
Strategy [3] - 13:9,
13:15, 14:3
Street [6] - 1:22,
2:12, 2:17, 3:11, 3:15,

15:22
Streets [1] - 3:6
stringent [1] - 160:10
structural [1] - 85:12
structure [8] - 84:23, 152:16, 183:15, 186:4, 186:10, 186:21, 186:23, 219:1
stuck [1] - 192:10
student [1] - 96:18
students [8] - 55:17, 142:25, 188:4, 188:9, 188:11, 188:12, 188:15, 225:5
studied [1] - 76:15
studies [2] - 188:17, 188:18
study [3] - 100:24, 102:9, 188:13
stuff [9] - 9:23, 24:17, 31:3, 31:5, 66:19, 91:11, 163:18, 173:10, 176:9
style [1] - 216:25
subject [14] - 7:18, 11:18, 28:16, 46:10, 46:11, 59:3, 84:17, 89:16, 127:9, 134:9, 167:4, 187:12, 218:17, 226:25
subjects [1] - 47:13
submission [1] - 14:2
submit [4] - 14:1, 164:11, 164:24, 165:4
submitted [1] - 163:25
submitting [1] - 11:1
subsequent [2] - 30:10, 160:7
subset [3] - 18:24, 18:25, 123:2
substance [2] - 22:8, 189:16
substantially [1] - 43:12
substituted [1] - 48:15
substitutes [3] - 103:24, 108:5, 108:9
subsume [1] - 152:15
successful [1] - 126:8
successfully [1] - 108:13
successively [1] - 54:5
suffer [1] - 132:20

suffered [1] - 118:24
sufficient [1] - 189:4
suffocate [1] - 221:21
suggest [3] - 38:20, 84:15, 133:22
suggested [2] - 45:20, 114:23
suggesting [2] - 193:23, 199:22
suggestion [1] - 142:15
Suite [5] - 2:5, 2:12, 2:21, 3:12, 3:15
summarized [2] - 110:12, 132:13
summarizing [1] - 111:4
Summary [1] - 118:10
summary [10] - 25:23, 27:16, 28:19, 65:11, 89:12, 99:7, 108:16, 108:19, 109:3, 143:22
SUMNER [4] - 3:3, 20:17, 181:24, 201:21
Super [1] - 2:13
Supermarkets [1] - 2:7
SuperValu [6] - 2:14, 119:18, 121:1, 121:2, 123:12, 123:22
supervise [2] - 21:17, 213:17
supplemental [2] - 29:21, 145:18
supplements [1] - 30:10
supplier [3] - 78:16, 78:18, 78:19
supplies [1] - 102:16
supply [17] - 12:18, 22:15, 65:17, 81:8, 87:11, 89:14, 90:25, 91:13, 91:16, 91:17, 91:22, 91:25, 102:15, 103:7, 130:22, 131:4, 216:14
supplying [1] - 212:7
support [3] - 99:21, 102:2
supported [3] - 99:16, 100:17, 125:11
suppose [1] - 90:24
supposed [1] - 26:8
surprise [2] - 145:12, 169:2
surprisingly [1] - 28:2

suspect [1] - 68:17
suspicious [1] - 17:19
sustainable [1] - 152:3
sustained [5] - 127:7, 133:1, 149:8, 182:18, 186:7
sworn [4] - 5:20, 6:13, 203:18, 204:7
Sylvia [1] - 206:4
systematic [1] - 189:7
systematically [2] - 186:17, 186:19

T

table [10] - 75:1, 117:23, 118:3, 118:7, 118:15, 124:14, 124:15, 125:17, 198:23, 199:17
Table [2] - 110:10, 199:22
tables [3] - 198:25, 199:24, 225:7
tad [1] - 225:7
tail [2] - 40:5, 40:8
Tampa [1] - 122:22
targets [1] - 216:12
taught [6] - 7:17, 7:23, 7:25, 8:1, 8:3, 8:4
taxation [1] - 12:18
Tea [1] - 2:8
teach [3] - 7:4, 7:5, 7:18
teaching [2] - 7:16, 27:9
team [1] - 201:25
technical [3] - 55:16, 66:19, 66:24
technically [1] - 186:21
technique [2] - 73:13, 87:24
techniques [2] - 16:14, 74:1
TED [3] - 48:24, 49:5, 49:11
temperature [1] - 212:1
template [1] - 225:17
temptation [2] - 74:18, 132:24
ten [8] - 6:24, 45:22, 45:24, 147:7, 147:8, 147:9, 211:22, 227:2

tend [2] - 27:6, 184:15
tenure [1] - 14:19
term [44] - 10:20, 18:17, 18:18, 18:19, 19:17, 19:18, 22:15, 22:24, 26:8, 27:15, 46:24, 57:23, 72:20, 73:8, 73:9, 86:2, 96:16, 127:18, 127:19, 131:19, 131:21, 131:25, 132:8, 133:2, 133:5, 133:6, 148:10, 148:20, 152:8, 152:18, 178:6, 178:8, 182:13, 182:17, 183:17, 184:2, 184:4, 186:6, 204:17, 209:4, 213:22, 221:18
terms [59] - 5:4, 19:8, 22:21, 24:17, 24:25, 26:18, 27:23, 31:24, 32:8, 34:25, 36:13, 37:17, 37:18, 41:19, 41:20, 50:10, 55:5, 63:7, 70:24, 77:2, 83:11, 85:9, 89:20, 89:24, 96:19, 97:22, 99:7, 99:10, 99:11, 99:12, 100:22, 101:11, 104:15, 104:16, 104:17, 104:18, 108:6, 110:22, 114:18, 115:2, 129:19, 134:25, 135:6, 150:2, 150:16, 157:2, 159:15, 160:4, 160:5, 172:22, 175:3, 187:3, 189:17, 196:25, 208:14, 215:20, 221:25, 222:3
terrific [1] - 227:16
test [19] - 19:3, 19:4, 34:21, 38:1, 38:16, 56:1, 57:13, 61:13, 70:8, 104:1, 106:8, 135:1, 135:7, 151:3, 151:6, 151:22, 153:22, 188:13
testified [21] - 6:13, 58:25, 59:2, 101:12, 131:20, 134:1, 145:1, 145:9, 148:18, 148:22, 149:12, 150:23, 150:24, 150:25, 155:18, 161:22, 167:6, 173:24, 174:1, 174:2,

204:7
testify [6] - 4:16, 20:12, 23:10, 104:6, 112:19, 148:13
testifying [1] - 30:16
testimony [16] - 28:23, 73:10, 74:10, 117:24, 149:9, 157:23, 159:22, 162:24, 163:4, 168:25, 195:1, 195:10, 196:24, 200:14, 226:15
testing [1] - 37:24
tests [1] - 61:15
Texas [3] - 6:24, 7:12, 8:3
textbook [3] - 12:20, 12:21, 12:23
textbooks [2] - 12:13, 98:4
Thanksgiving [3] - 4:13, 4:24, 6:4
THE [135] - 1:1, 1:2, 1:12, 4:2, 4:4, 4:14, 4:18, 4:20, 5:12, 5:18, 5:21, 5:22, 5:25, 6:1, 6:3, 6:4, 6:6, 6:7, 9:8, 10:5, 10:8, 10:11, 20:14, 20:19, 25:13, 30:19, 33:12, 67:19, 67:23, 68:2, 68:4, 68:9, 68:18, 68:21, 68:24, 69:3, 69:5, 100:2, 100:6, 103:11, 103:13, 112:11, 112:12, 112:16, 112:20, 112:24, 113:3, 113:25, 114:9, 116:23, 117:1, 117:4, 117:7, 124:2, 141:3, 141:12, 141:14, 141:19, 141:20, 141:25, 142:5, 142:9, 142:17, 142:20, 142:22, 143:5, 143:6, 143:8, 143:10, 143:19, 144:14, 144:17, 144:19, 153:8, 153:10, 153:11, 153:15, 154:17, 154:19, 154:22, 155:6, 157:11, 161:12, 162:16, 162:20, 169:23, 169:25, 170:3, 170:4, 181:3, 181:22, 181:25, 199:11, 200:18, 200:20, 201:19,

201:23, 201:24,
202:1, 202:5, 202:8,
202:13, 202:16,
202:18, 202:21,
202:24, 203:1, 203:7,
203:11, 203:13,
203:15, 203:16,
203:19, 203:20,
203:23, 203:24,
204:1, 204:2, 224:16,
224:24, 225:1, 225:3,
225:4, 225:21, 226:1,
226:5, 226:13,
226:18, 226:21,
227:12, 227:21,
227:24, 228:1, 228:4,
228:10
theme [1] - 12:5
themselves [7] -
126:18, 157:6, 158:4,
158:16, 159:5, 165:8,
191:2
THEODORE [1] -
2:21
theoretical [5] - 8:11,
12:4, 19:2, 19:8, 19:9
theories [1] - 19:3
theory [7] - 7:21, 8:2,
8:3, 19:14, 20:9,
170:9, 198:1
thereafter [1] - 124:1
therefore [9] - 45:13,
51:16, 112:14,
148:14, 150:8,
183:18, 183:25,
184:7, 184:24
they've [2] - 12:13,
146:17
thick [1] - 31:5
thin [1] - 41:24
thing's [1] - 193:7
thinking [4] - 35:13,
62:17, 110:3, 112:3
third [6] - 22:24,
80:14, 136:23,
142:25, 164:19, 225:5
third-year [2] -
142:25, 225:5
three [9] - 12:15,
22:14, 38:23, 45:21,
64:3, 131:21, 211:16,
211:18, 212:8
thrifty [1] - 35:14
throughout [4] -
137:22, 146:3,
164:16, 184:3
throwing [2] - 75:4,
86:25
Thursday [1] - 4:9
tie [1] - 103:20
tied [5] - 95:1,
111:24, 134:17,
135:10, 136:9
tightened [1] - 71:9
tightening [1] -
53:14
tighter [1] - 54:5
time-squared [1] -
183:23
timing [1] - 165:23
tiny [2] - 5:14, 65:21
tip [3] - 78:13, 78:14,
194:7
tipped [2] - 124:23,
197:5
tippling [3] - 192:21,
195:13, 195:21
tips [1] - 195:16
title [7] - 16:4, 62:10,
82:14, 87:22, 93:12,
93:15, 204:14
titled [11] - 33:9,
33:15, 52:5, 57:18,
60:1, 62:9, 100:12,
105:19, 118:10,
123:12, 128:10
today [20] - 4:25, 5:5,
6:2, 22:5, 23:10,
23:22, 24:9, 31:13,
46:22, 83:24, 117:24,
134:1, 140:21, 146:5,
186:11, 200:13,
200:24, 216:1, 222:17
today's [1] - 118:16
together [16] - 51:9,
103:20, 117:20,
117:23, 118:16,
123:2, 125:17,
125:18, 126:3,
132:23, 138:10,
174:6, 174:7, 188:12,
190:5, 216:6
tomorrow [3] -
224:22, 225:9, 226:2
tonight [2] - 4:9,
225:6
tons [1] - 79:25
took [6] - 89:17,
129:18, 147:18,
148:25, 207:22,
223:21
tool [1] - 10:9
top [10] - 83:4, 83:5,
84:12, 112:9, 116:16,
118:13, 139:21,
162:3, 194:14, 221:21
topic [2] - 11:24,
224:15
topics [1] - 10:23
Total [4] - 33:9,
33:15, 36:11, 60:1
total [18] - 29:20,
33:24, 34:12, 35:20,
44:16, 60:11, 128:19,
145:23, 156:23,
156:24, 174:3, 177:5,
189:12, 189:13,
189:22, 198:6, 203:9,
219:14
tough [3] - 132:22,
132:24, 183:3
towards [7] - 19:12,
40:5, 78:13, 124:23,
148:18, 164:20,
180:18
traces [2] - 58:15,
58:16
track [1] - 224:13
tracked [1] - 114:24
tracks [1] - 114:12
traction [2] - 193:7,
193:16
Trade [10] - 9:2, 9:5,
14:13, 14:15, 14:16,
15:15, 74:5, 104:2,
175:16, 190:10
trade [12] - 18:1,
78:25, 79:2, 126:9,
148:17, 150:4,
150:21, 156:14,
156:15, 192:14,
195:25, 196:3
trailers [1] - 213:3
trainee [2] - 205:10,
205:22
training [9] - 23:1,
23:13, 23:25, 24:16,
29:8, 39:3, 205:16,
205:24, 207:8
trajectory [1] -
224:22
transaction [4] -
113:15, 113:16,
116:5, 123:18
transactions [13] -
95:10, 111:24,
113:11, 113:18,
113:19, 114:15,
114:16, 114:23,
115:5, 116:3, 139:5,
171:24, 198:24
transcribing [1] -
31:9
transcript [8] - 1:15,
31:11, 171:2, 171:7,
194:15, 194:24,
227:8, 228:16
Transcript [1] - 1:25
transcripts [7] -
31:13, 80:25, 107:3,
159:20, 159:21,
170:25, 227:14
translates [1] - 98:25
travel [3] - 201:23,
202:8, 213:5
tray [2] - 212:6,
212:9
treat [1] - 227:5
tremendously [1] -
227:16
trend [28] - 34:7,
34:14, 34:19, 34:20,
37:1, 37:2, 37:3, 37:4,
58:11, 60:17, 60:19,
60:25, 61:12, 61:14,
61:15, 61:19, 61:20,
61:21, 81:4, 139:7,
139:8, 183:21, 185:1,
185:3, 185:18, 186:23
Trends [3] - 33:16,
36:11, 60:2
trends [5] - 34:18,
34:22, 136:19,
139:24, 216:9
trial [12] - 10:18,
28:24, 31:9, 31:13,
159:20, 159:21,
171:2, 209:3, 225:6,
226:15, 226:23
TRIAL [1] - 1:15
trick [1] - 179:19
tried [3] - 61:25,
137:21, 221:5
trimmed [2] - 205:14,
213:1
trip [1] - 213:8
troop [1] - 143:3
troops [1] - 142:23
trucking [1] - 228:6
true [2] - 139:18,
161:22
trust [2] - 117:4,
117:6
truth [1] - 114:6
truthful [1] - 157:22
try [12] - 25:1, 50:13,
52:21, 131:13,
132:23, 154:17,
182:10, 182:11,
196:4, 207:25,
211:22, 217:24
trying [10] - 50:23,
51:1, 88:25, 107:4,
124:2, 133:9, 183:1,
209:18, 222:11,
225:15
Tuesday [1] - 4:10
tuition [1] - 12:20
turn [30] - 9:4, 21:4,
27:15, 31:15, 42:17,
52:5, 57:15, 59:3,
62:7, 87:17, 89:16,
96:1, 126:19, 127:9,
128:7, 155:8, 157:22,
157:25, 162:2, 163:8,
164:17, 166:4,
176:13, 190:20,
194:11, 196:14,
196:16, 200:23,
218:16
turned [5] - 40:17,
89:6, 113:12, 114:17,
226:25
Two [1] - 3:6
two [54] - 19:1,
20:23, 27:11, 34:19,
34:24, 37:3, 38:23,
44:14, 48:23, 61:8,
61:11, 61:14, 62:15,
64:3, 64:14, 72:17,
75:8, 93:3, 95:4,
103:23, 121:9,
129:13, 131:20,
138:5, 138:20,
138:25, 139:1,
141:22, 142:3, 142:6,
142:8, 143:16,
145:18, 184:1,
189:14, 195:5,
198:15, 198:25,
199:24, 200:19,
202:6, 206:1, 206:14,
206:17, 207:7,
209:25, 211:24,
212:15, 213:6,
214:12, 215:25,
216:8, 216:21
two-stage [1] - 93:3
tying [1] - 150:16
type [10] - 74:2,
77:14, 96:10, 126:7,
139:13, 140:5, 172:6,
209:2, 210:17, 226:6
types [13] - 7:22, 8:9,
10:25, 24:21, 32:10,
78:23, 96:8, 108:3,
110:18, 136:10,
150:21, 185:10,
196:10
typical [1] - 45:24
typically [8] - 10:5,
25:1, 27:5, 92:7,
101:8, 102:12, 107:3,
215:11
typos [1] - 31:3

U

U.S. [23] - 1:22,
14:17, 28:2, 36:4,

36:6, 36:9, 44:17,
47:18, 57:10, 89:14,
94:2, 100:14, 101:3,
104:2, 105:23,
105:24, 106:2,
128:19, 128:21,
129:10, 173:25, 190:4
UB [1] - 94:6
UEP [74] - 22:19,
22:22, 29:8, 29:9,
32:8, 32:9, 39:12,
39:25, 40:20, 41:8,
53:9, 56:21, 58:18,
71:6, 72:6, 77:17,
77:24, 78:2, 78:13,
80:2, 85:2, 86:24,
102:7, 124:12,
124:13, 124:18,
124:23, 125:3, 125:5,
125:8, 126:22,
126:25, 132:6,
148:16, 152:25,
153:16, 159:4,
160:19, 161:8,
161:17, 163:25,
164:10, 164:25,
165:3, 165:17,
170:14, 171:9,
173:11, 174:4, 174:7,
174:20, 174:24,
175:8, 176:9, 177:11,
181:24, 190:17,
192:9, 192:11,
192:19, 193:10,
193:20, 193:22,
193:24, 195:16,
195:20, 196:10,
196:12, 196:15,
200:5, 201:3, 226:11,
228:8
ultimate [1] - 209:19
ultimately [19] - 11:8,
14:20, 15:6, 19:24,
36:22, 37:10, 46:8,
50:24, 51:19, 56:12,
59:9, 71:4, 76:14,
77:4, 135:15, 152:17,
184:8, 189:8, 216:13
um-hum [7] - 43:6,
70:18, 91:14, 148:11,
159:6, 180:1, 187:16
unable [3] - 131:17,
133:20, 154:8
unconcentrated [1] -
17:20
uncorrelated [1] -
186:15
under [14] - 18:10,
42:8, 72:11, 80:15,
94:5, 119:23, 143:21,

144:1, 161:15,
191:20, 197:25,
204:22, 223:12,
227:22
undergraduate [3] -
7:12, 8:22, 15:13
underlying [14] -
11:4, 13:20, 13:22,
55:20, 56:23, 81:17,
83:12, 83:15, 88:5,
98:2, 112:14, 136:19,
137:16, 164:15
underpredicting [1] -
186:18
understandable [1] -
186:2
understating [1] -
184:23
understood [3] -
173:23, 184:17, 228:3
unilaterally [2] -
38:11, 170:12
uninformative [1] -
198:3
UNITED [1] - 1:1
United [26] - 3:7, 3:8,
14:10, 14:13, 14:14,
14:17, 23:4, 25:19,
29:8, 31:17, 65:17,
71:3, 100:13, 101:3,
101:18, 101:19,
102:11, 105:14,
106:23, 108:20,
108:25, 131:15,
159:25, 167:15,
170:4, 193:2
units [2] - 92:3, 92:4
universities [1] -
7:23
University [18] -
6:20, 6:21, 6:22, 6:25,
7:1, 7:8, 7:13, 7:14,
7:15, 7:16, 7:24, 8:1,
8:3, 8:4, 12:17, 101:2,
205:1
unlawful [22] - 23:16,
24:3, 26:3, 28:7,
28:16, 28:22, 32:20,
51:3, 57:11, 109:13,
115:15, 119:8,
119:14, 120:4, 120:9,
120:13, 120:18,
120:21, 121:3,
121:11, 121:18,
121:24
unless [1] - 225:13
unlike [1] - 123:22
unlikely [5] - 65:5,
126:8, 162:25, 163:5,
163:17

unobserved [1] -
45:4
unrelated [3] - 26:13,
115:9, 115:25
unsuccessful [1] -
132:9
unusual [2] - 5:15,
132:19
up [96] - 5:5, 5:9,
5:17, 6:8, 7:17, 20:23,
26:11, 30:17, 31:13,
33:1, 33:22, 33:23,
35:15, 36:16, 38:11,
44:18, 44:19, 45:14,
49:12, 53:17, 60:16,
62:17, 63:6, 63:12,
69:13, 69:14, 75:1,
78:21, 81:15, 88:2,
88:21, 89:17, 90:6,
96:22, 97:17, 97:20,
98:25, 99:22, 100:11,
100:23, 104:8,
104:10, 106:21,
108:3, 111:11, 116:4,
126:3, 129:20,
132:10, 132:18,
132:23, 133:9,
135:16, 136:15,
138:10, 139:11,
139:15, 139:16,
143:17, 143:18,
166:1, 166:6, 182:8,
185:2, 186:7, 186:13,
188:9, 192:5, 193:1,
193:5, 193:8, 195:20,
199:6, 199:10, 203:8,
203:15, 205:19,
205:25, 207:3, 208:7,
210:9, 216:3, 216:16,
217:12, 217:22,
221:12, 221:21,
224:10, 225:7, 226:7
upfront [1] - 217:1
upper [1] - 210:12
ups [1] - 49:2
upward [1] - 34:7
Urner [32] - 24:19,
92:22, 94:23, 95:3,
95:10, 111:23,
111:24, 113:10,
114:12, 114:24,
115:8, 115:9, 115:12,
115:14, 115:19,
116:1, 116:2, 116:4,
116:7, 116:8, 117:10,
123:18, 123:23,
136:3, 136:9, 136:10,
138:14, 138:18,
171:23, 180:5
USDA [13] - 24:19,

31:25, 33:25, 36:8,
58:9, 82:23, 88:20,
171:17, 171:20,
171:25, 172:23,
198:11, 198:12
useful [1] - 74:16
USEM [9] - 22:25,
128:10, 128:17,
148:19, 148:20,
172:15, 181:23,
226:18, 228:8
uses [2] - 58:3, 73:2
utilize [2] - 152:10,
195:5
utilized [2] - 13:20,
171:24

V

vaccinated [1] -
205:13
vaccination [1] -
213:2
vaccinations [2] -
213:21
vaccines [1] - 172:5
valid [1] - 51:14
value [2] - 44:16,
84:1
values [1] - 55:10
VANEK [1] - 2:11
VAR [17] - 74:13,
81:9, 81:11, 81:24,
82:6, 82:15, 83:10,
83:11, 83:18, 83:22,
84:1, 85:8, 86:18,
87:5, 87:10, 88:11
variable [16] - 40:18,
43:14, 43:16, 45:2,
48:7, 48:10, 62:2,
63:23, 64:21, 65:2,
73:17, 73:18, 73:20,
135:2, 183:21
variables [26] -
37:19, 37:20, 37:21,
37:22, 43:1, 45:4,
45:7, 45:10, 47:1,
49:20, 50:21, 50:22,
52:24, 64:1, 64:17,
64:19, 72:23, 72:25,
73:2, 73:15, 73:16,
83:21, 84:11, 84:17,
155:14, 185:19
variation [5] - 63:18,
63:23, 64:25, 88:25,
185:24
variety [4] - 24:23,
47:1, 51:25, 74:6
various [7] - 5:13,

43:1, 45:7, 155:9,
155:14, 164:1, 205:11
VARs [1] - 83:19
vary [2] - 75:9, 99:12
vector [3] - 81:12,
81:13, 81:14
Vee [4] - 2:7, 119:17,
120:1, 120:2
vendor [1] - 124:8
venturing [1] -
158:15
verification [1] -
125:19
verify [1] - 48:2
version [2] - 30:5,
195:1
versus [1] - 87:6
Versus [2] - 57:18,
82:15
vertical [1] - 33:23
vertically [3] - 209:4,
209:8, 209:17
via [1] - 1:25
vice [3] - 204:15,
207:10, 226:9
view [5] - 77:2,
132:8, 132:9, 191:22,
200:8
viewpoint [2] -
189:24, 193:6
views [1] - 227:9
vigor [1] - 74:9
vintage [1] - 186:13
violate [1] - 80:16
violated [1] - 147:15
violation [3] -
147:18, 150:7, 150:9
virtually [1] - 125:7
virtuous [1] - 193:1
visual [1] - 218:3
vitae [1] - 9:13
voice [1] - 6:8
Voices [8] - 101:18,
101:19, 102:11,
131:15, 159:25,
167:15, 170:4, 193:2
voir [1] - 20:14
volume [1] - 104:12
Volume [1] - 158:1
volumes [4] - 12:16,
25:2, 223:1, 223:11
voluntarily [1] -
194:5
vouch [1] - 112:14
VP [2] - 207:21,
207:24

W

wait [4] - 63:25, 169:22
waiting [1] - 217:19
wake [1] - 132:10
Walgreen [1] - 2:7
Walgreens [3] - 119:19, 121:9, 121:10
walk [3] - 62:20, 63:12, 197:18
Walker [7] - 79:9, 134:7, 135:18, 136:2, 136:23, 137:2, 137:5
Walker's [9] - 79:7, 134:12, 134:14, 135:8, 136:6, 136:13, 137:12, 137:25, 139:22
Wall [2] - 8:5, 15:22
wall [2] - 8:6, 221:21
wants [1] - 219:1
warm [1] - 212:2
warming [1] - 212:4
washed [2] - 224:9
Washington [2] - 3:12, 13:6
waste [1] - 223:9
watch [2] - 143:1, 221:13
watching [2] - 202:1, 203:2
water [4] - 206:9, 213:17, 213:19, 217:18
wave [2] - 220:8, 220:10
ways [3] - 71:11, 184:1, 218:18
weather [1] - 4:25
Weaver [3] - 121:7, 121:17, 122:23
wedding [1] - 157:20
Wednesday [1] - 4:10
week [7] - 4:7, 207:2, 207:4, 211:8, 217:19, 222:10, 226:4
week's [1] - 217:11
weekend [2] - 226:22, 226:23
weeks [12] - 157:20, 210:23, 211:24, 213:19, 214:22, 214:24, 215:5, 215:11, 215:12, 215:18, 217:12, 226:18
welcome [1] - 69:5

Welfare [1] - 76:18
welfare [21] - 8:14, 11:23, 11:25, 19:24, 21:2, 21:3, 45:12, 64:18, 70:1, 76:24, 77:6, 77:7, 77:8, 78:5, 79:3, 79:5, 79:14, 80:4, 125:16, 183:22
West [2] - 2:12, 186:24
whereby [1] - 193:9
whichever [2] - 33:6, 213:15
White [1] - 123:13
white [9] - 94:12, 112:4, 114:12, 114:13, 114:14, 138:15, 138:18, 138:23
whites [2] - 53:11, 96:11
WHITNEY [1] - 3:4
whoa [3] - 154:12
whole [16] - 16:2, 18:2, 27:2, 29:12, 36:18, 37:22, 42:23, 46:22, 49:2, 78:5, 82:4, 84:2, 90:3, 90:8, 145:20, 195:3
Wholesale [1] - 2:23
wholesale [6] - 24:20, 95:5, 95:9, 95:11, 137:14
widens [1] - 85:22
wife's [1] - 35:14
Wilcox [2] - 121:7, 122:23
WILLIAM [1] - 2:3
Winn [4] - 2:22, 119:19, 121:15, 121:16
Winn-Dixie [4] - 2:22, 119:19, 121:15, 121:16
wise [2] - 160:5, 219:13
wish [1] - 144:17
withdraw [1] - 95:19
withdrawn [14] - 9:19, 14:5, 17:14, 19:17, 21:8, 24:12, 59:13, 77:19, 87:9, 115:22, 119:6, 140:15, 196:5, 199:13
Witness [4] - 5:20, 69:2, 141:18, 203:18
witness [18] - 5:11, 6:12, 25:12, 68:7, 68:13, 68:14, 68:16, 113:22, 113:24,

114:1, 140:24, 141:1, 142:14, 148:6, 153:6, 154:15, 162:14, 204:6
WITNESS [19] - 5:21, 5:25, 6:3, 6:6, 68:9, 112:11, 114:9, 143:5, 153:10, 153:15, 169:25, 170:4, 199:11, 201:24, 202:5, 203:19, 203:23, 204:1, 225:3
witnesses [1] - 5:14
wondering [1] - 63:8
wood [1] - 221:11
word [6] - 25:3, 43:5, 72:18, 84:19, 88:15, 157:19
words [4] - 41:21, 106:18, 133:1, 149:7
works [3] - 78:9, 185:5, 208:25
world [18] - 12:22, 26:9, 26:15, 36:1, 36:24, 51:12, 51:19, 51:20, 51:22, 77:1, 77:2, 81:13, 139:4, 183:4, 183:6, 200:8
worried [1] - 80:18
worry [5] - 38:24, 78:10, 81:21, 182:20, 182:23
worrying [1] - 80:12
worth [1] - 185:25
wow [1] - 227:17
WRIGHT [2] - 3:9, 3:13
write [9] - 15:5, 21:22, 29:21, 29:24, 31:2, 31:4, 72:22, 177:16, 192:11
writing [2] - 29:25, 31:1
written [7] - 11:11, 11:14, 11:19, 12:9, 12:13, 12:15, 12:25
wrote [4] - 12:16, 12:19, 35:1, 177:15

Y

year [19] - 14:19, 45:25, 51:16, 70:5, 142:25, 168:20, 205:18, 206:2, 208:9, 209:24, 214:12, 215:25, 216:8, 216:14, 216:15, 216:17, 216:21, 225:5
year-round [1] -

208:9
yearly [1] - 165:18
years [20] - 6:24, 8:6, 19:6, 19:11, 19:16, 33:21, 128:17, 132:22, 147:7, 147:8, 147:9, 184:10, 195:17, 207:7, 209:25, 215:25, 216:8, 216:22, 223:5, 223:21
yellow [3] - 62:16, 63:5, 71:23
yes-or-no [1] - 154:24
yesterday [2] - 83:25, 134:3
young [2] - 213:14, 214:25
yourself [4] - 6:17, 20:24, 21:2, 167:18

Z

Zephyr [2] - 121:7, 122:23
zero [1] - 40:18
zeroed [1] - 139:10
zeros [3] - 41:20, 41:22, 41:24